# Consumers' Research Bulletin



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# Consumers' Research Bulletin

#### OFF THE EDITOR'S CHEST

A S SPRING ARRIVES and the weather entices the family to take to the open road, strategically located restaurants and eating places begin to experience an increase in trade. Somehow attractive scenes and magnificent views are better appreciated if, before or after, a good meal is available near by. Indeed, in some sections of the country, wise tourists make a beeline for the local well-patronized restaurant early and explore the mountain roads afterwards in order to

avoid having to wait for a table.

Just what constitutes a good restaurant in the opinion of its patrons varies from region to region, but there are certain fundamentals of success that are found in all popular eating places that cater to men and women alike. There is no denying that there is a sex difference with respect to tastes in food. Women like variety, and attractively arranged, daintily served dishes. Men want to be sure they get enough to eat, and have a marked preference for meat and "substantial" foods. It has also been noted by several widelyread columnists that men do not appreciate the little sprigs of parsley used as a decoration or lettuce as a 'space-filler" on a plate. The good family restaurant will necessarily provide choices that appeal to both sexes, else there may be a dispute over stopping there for a meal, with one half of the family disgruntled over losing an argument.

Where women have a preference for creamed and au gratin dishes, men like meat in sizable hunks, with the exception of hamburger, also a favorite dish with the men. There are, however, fussy gentlemen who will not touch hamburger or meat loaf away from home. Men like clear soup, which should be hot, not lukewarm, while women will often prefer fruit cup or tomato juice. In some sections of the country, women show preference for soft, hot breads, while men go for hard, crisp rolls. In other regions, however, everybody expects to be served fresh-made, hot breads or rolls of some variety. One traveler from "up north" was entertained to discover the entry "cold bread" on the menu

of a southern railroad dining car.

In the matter of selection it has been noted that men do not require great variety. They apparently are satisfied with soup, steak or roast beef, or chops, potatoes, and one other fresh vegetable, apple pie or ice cream, and coffee day in and day out - provided (Continued on page 29)



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Consumers' Research functions to provide unbiased consumers. Research functions to provide unbiased information on goods bought by ultimate consumers. For their benefit (not for business or industry) and solely with the funds they provide, CR carries on tests and research on a wide variety of goods, materials, and appliances, and publishes the findings in CR Bulletin. Consumers' Research is a non-profit institution, and is presearch and provide unbiased. stitution, and is organized and operates as a scientific, technical, and educational organization.

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sonnel. \*\*TCR will, of course, gladly change addresses for men and women in the services as often as required by changes in station and other circumstances.

\*\*\frac{1}{2}\frac{1}{2}\text{ for a brief cumulative index of the 1953 BULLETINS preceding this issue, see page 25.

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# The Consumers' Observation Post

PRICES OF NEW AUTOMOBILES are too high in the opinion of dealers and customers alike, according to Motor. The magazine reported last December that dealers were finding consumers' resistance so tough that, except for one low-priced line and one car in the top bracket, most new cars were being sold at \$200 to \$300 under list prices, either as over-allowance on a turn in, or as a straight price cut.

ALL TOOTHPASTE ADVERTISING should be regarded with a "skeptical attitude," advises the Council on Dental Therapeutics of the American Dental Association. The Council holds that proper use of the toothbrush is more important in care of the teeth than any particular kind of dentifrice, and points out that the usefulness of such products beyond their ability to assist the toothbrush in cleaning the accessible surfaces of the teeth is questionable. It warns against penicillin dentifrices except on a prescription basis since indiscriminate use of such products may sensitize the user and foster the development of penicillin-resistant organisms, making ineffective later administration of penicillin in a case of urgent need.

"BATTERY ADDITIVES," CR has often noted, do not improve the performance of automobile storage batteries as claimed. Recent publicity for one product, Battery AD-X2, has asserted, on the basis of tests made at M.I.T. and elsewhere, that the National Bureau of Standards and other government agencies have made errors in their tests in failing to recognize the merits of AD-X2. CR has been unable to secure from any source the report on which the press release was based, but the Bureau of Standards has issued a statement on the subject which points out that several of the tests cited that appeared to show that AD-X2 improved battery performance were made under special conditions not encountered in normal batteries. We are advised that on February 24, 1953, the Postmaster General issued a fraud order against the manufacturers of Battery AD-X2, but it was suspended almost immediately — reportedly following an all-day conference between the Postmaster General and the Secretary of Commerce and their top aids, pending further investigation.

PITY THE POOR CONSUMER in the USSR who is prevented from sharing in the benefits of socialist competition. The Moldavian Consumers' Union is entrusted with the task of supplying the farm villages in the Moldavian region with building, household, and other materials, according to Economic Intelligence, a periodical published by the Chamber of Commerce of the United States. It appears that the management originally received from one factory 180 thousand dinner spoons priced at 50 kopeks each, and from another factory 400 identical dinner spoons priced at 1 ruble, 70 kopeks each. The management of the Moldavian Consumers' Union then sold all the spoons at the higher price of the 400 and distributed the profit, a horrid word in the USSR, among their employees. The matter was finally presented to the authorities who found nothing of a criminal nature in the operations of the Consumers' Union, but relieved the top executive of his job. Nevertheless, he was reported to have been given a big send off with the advice "Go, my friend, to a new field and act boldly."

THAT THE ESSENTIAL CAUSE OF OBESITY is overeating is so well established that it seems hardly necessary to point out that the effective, safe method for taking off excess poundage is to reduce food consumption by

careful and proper dieting. Yet hope springs eternal, and when alluring claims are made for some product that seem to promise a magical effect, we are often asked if there is any merit in such preparations. At the convention of the American Medical Association in Chicago last year, there was an exhibit of reducing aids which the A.M.A.'s Bureau of Investigation considered ineffective. According to a report on the subject by the Indianapolis Better Business Bureau, among the products cited as "Fads and Fallacies for the Fat" were: Wafex, Mynex, Junex, Ayds Candies, Slend-R-Form, Fatono, R.D.X., Rennel Concentrate, Protam, Fastabs, and Kyron. Perhaps the fact that Americans are reported to be eating 12 percent more food than they did in pre-war years has something to do with the increased weight problem.

ADVERTISING that makes reference to test reports or scientific studies has become so fashionable and so abused that the American Council of Commercial Laboratories has issued the findings of a special committee on the subject. Among the recommendations made were that: No laboratory reports may be used in connection with the advertising or sale of any product or process without written authorization; if such permission is given, the advertising copy must be approved by the laboratory. The head of one leading commercial laboratory follows the same rule but further takes the position that if a report from his laboratory is used in advertising the full report is to be made available to any reasonably qualified person who asks to see it.

SOIL CONDITIONERS are a lively topic whenever two or more amateur gardeners gather together. With large advertisements heralding the "amazing," "new," "miracle," "growth stimulant," "No Raking," "No Spading," "Just Sprinkle On," it is small wonder that the Federal Trade Commission felt compelled to call a trade practice conference, and the National Better Business Bureau drew up a guide for newspapers and magazines in scanning claims for the new products. Most soil conditioners, reports Business Week, fall into one of two groups: the Krilium type which is based on modified vinyl acetate maleic acid compounds; and the Aerotil type, which is based on acrylonitrile. The Monsanto Chemical Co. has recently been granted two patents in the field covering products competitive with Krilium. All products in the field are high in price, and there is considerable evidence that they have been oversold. The work of testing and developing, however, continues, and in time the developers hope the price may even be sufficiently low to interest the large-scale farmer.

THE MEN'S WEAR TRADE is hopeful about having a good season this year. At least one big retailer is sure that men have the money and need the clothes, according to Men's Wear. It appears that the big purchases of men's clothing made early in the days of the Korean War are about ready for replacement. CR will make its contribution to providing prospective purchasers with buying information by reporting on men's sport shirts in an early issue.

PERFUME advertised as containing "Pure 24-Karat Gold" was recently the subject of Federal Trade Commission action. The Argentum Laboratories of Philadelphia were ordered by the F.T.C. to cease advertising that their various perfume products contained gold. The Commission found that the amount present was so small as to be infinitesimal, smaller, in fact, than that found in ordinary sea water. Furthermore, it was pointed out that there was no evidence that such an extremely small amount of gold had any effect whatever upon the perfume, except perhaps to impress the potential purchaser that she was getting something of value. Just why anyone would think that a lady would want a perfume containing 24-karat gold, which has no odor, is something for the marketing experts to ponder over.

(The continuation of this section is on page 33)

# Answers to Some Questions on Air Conditioning

#### Comments on the models of fourteen prominent manufacturers

SALES of air conditioning units for the home are increasing at a strikingly rapid rate; during 1952 about 50 percent more units were sold than in 1951. A trade press item predicts that 1953 will be a banner year. CR has had an engineering consultant prepare answers to 12 questions which were considered likely to be most in the minds of persons considering the purchase of a home air conditioning unit.

# What Are the Advantages of Air Conditioning?

A conditioning unit is almost always installed with the idea of providing lower room temperatures in hot summer weather. A person who has bought such a unit, however, will find that several other advantages give him almost as much satisfaction. Use of an air conditioning unit, particularly where it is a bedroom installation, helps a good deal in muffling street noises (by allowing windows to be closed at all times); besides, the amount of dust and soot in the air of the room are materially decreased, since all models include some sort of filter. The lower humidity produced by the unit not only has its own effect upon comfort but will also help with the problem of sticking drawers and doors that are hard to close. Where a cooling unit is installed in a bedroom, it is no longer necessary to rise and close a window into which a driving rain might otherwise come during the night.

#### What Disadvantages Have You Noted?

Aside from the matter of noise produced by the fan and by air flow through the unit, a principal disadvantage is that an air conditioning unit blocks off some light and view through the lower part of the window, which is the part of the window that is most useful to those in the room. This can be objectionable in winter when all possible daylight is needed indoors and when the machine is not serving any useful purpose. This objection can be overcome where the owner does

not mind the cost of a special installation, as a new opening can be made for permanent installa-



A Carrier conditioner. Note pleasing appearance produced by the small projection into the room as compared to the York unit below. The correspondingly increased projection toward the outside, may, however, have its disadvantages in some instances.

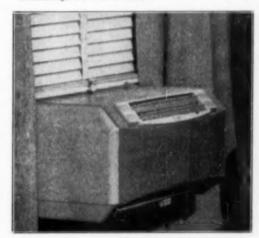


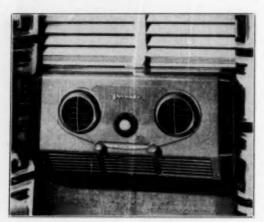
Photo Courtesy of York Corp., York, Pa.

tion of the unit at some suitable place, possibly under a convenient window. In one test location for CR, it was found that the cost of making such an opening would be \$25, and this was considered a reasonable outlay in view of the improved appearance and convenience.

#### How Noisy Is a Room Air Conditioner?

A window air conditioner contains a compressor unit driven by a 1/3 to 1 hp. motor, plus one or two auxiliary fan motors. While the larger motor is usually sealed and shock-mounted, all motors are driving moving parts or are moving air to an extent that no amount of soundproofing can be expected to eliminate completely the sounds they make, particularly in a quiet room. Such sounds may range from simple humming, such as might be expected of an electric fan, to somewhat louder noises and even some vibration. Unfortunately, it is almost impossible to judge the noise level of such equipment in the environment of the average showroom, and it is unwise to give serious weight to what the salesmen may say. Noise tests are not a satisfactory approach to the problem since there may be as much variation between given specimens of a single manufacturer's output as there would be between selected units of different makes.

In a living room, air conditioner noise is not likely to be considered objectionable, but in the bedroom, the problem depends very much upon the background of the occupants. If they have become habituated to sleeping in the city or other noisy places, the slight added noise of the air conditioning unit would be without significance. Some will mind the noise somewhat for the first few nights and then become so accustomed to it and so grateful for the comfort in hot-weather



Voenado Model 75 W.A.C.

sleeping that it no longer disturbs. However, if a person is nervous, irritable, sick, or hard to reconcile to changes in his environment, the best advice would be to insist on a trial before making a permanent commitment.

# Can Two Rooms be Cooled with One Unit?

In order to answer this question, CR arranged to have a ¾ hp. unit (Fedders, same as Crosley) installed in a 12 x 12 ft. study separated from a 14½ x 18 ft. bedroom by a 3½ ft. passageway with doors at both ends. Thus with the passageway doors closed, the unit cooled only the small study; open, it cooled the two rooms totaling 458 sq. ft. (with passageway). This latter area corresponds rather closely to the upper limit of capacity usually associated with ¾ hp. air conditioners.

While the bedroom was not quite as cool as the study (there was a temperature difference of 4 to 5 degrees; the cooler room was at about 70°F), this could be compensated for quite satisfactorily when desired, by turning the thermostat in the study to a cooler-than-normal position shortly before bedtime. The cooling of the bedroom could be expedited by placing a fan on the floor of the adjacent room which was being cooled: this was directed through the passageway between the two rooms. It was found, though, that after the initial cooling, the bedroom seemed equally comfortable with or without the use of the fan. The two-room installation was successful, and it would have been even more satisfactory had it been practicable to install the unit in the passageway between the two rooms. This might be carried out very easily in many homes. There was an actual advantage in the two-room arrangement in that the operating noise was not in the bedroom. After using the conditioner for the entire hot summer of 1952, the occupants and CR's observer reported entire satisfaction in cooling the two rooms from the one unit.

#### Should I Insist on Thermostatic Control?

It is the opinion of CR engineers that, unless you live in areas where continuous cooling is needed for days at a time, your cooling unit should have a thermostat. This is despite the fact that many companies offer it only as an accessory, and that others no longer supply a thermostat on models formerly so equipped. The thermostat is not advantageously mounted directly on the unit; it should be on the wall at least a few feet away so as to be more responsive

to conditions in the room itself. The use of the thermostat (\$12 to \$20 additional) may achieve sufficient economy in operation to be worth the extra cost. Besides, it permits advantageous use of the cooling unit in mild weather without danger of overcooling.

# Will My Room Lighting Affect Cost of Operation?

Whatever heat is introduced into the room through the lights, and that is greater with Mazda filament lamps than with fluorescent lamps, must be removed from the room by the cooling unit and therefore adds to the cost of operation. Lighting, however, has only a minor bearing on the effectiveness of the appliance since, if the unit was so chosen as to provide sufficient cooling effect for daytime use, it will easily handle the extra heat given off by the lights in the room at night. (The heat from the sun shining on an average window is roughly equivalent to the heat emitted by 500 watts of lighting and, of course, there is additional solar heat coming through walls, ceilings, windows, etc.) The unit chosen should be large enough that it will deal with the heat load of extra lights and other appliances and human beings likely to be present in the room during daylight hours.

If the air conditioner was selected for night use only, without consideration of the heat from the sun (a very poor practice for other than a hotel room), the heat of any electric lights and appliances might upset the calculations, if the capacity of the unit chosen was barely adequate as installed.

# What Is the Cost of Operating an Air Conditioner?

The following figures show the approximate average electric consumption of those models listed in this article, together with the cost per hour based upon a cost for electricity of one cent per kilowatt-hour:

15	hp.	models	consume	600	watts	and	cost	0.6c	per	hr.
16		**	44		**					
34	**	**	**	1210	11	24	8.6	1.21c	44	4.5
1	8.6		4.4	1.100	**		84	1.10.	44	**

Thus, if you are paying  $2\frac{1}{2}$ c a kilowatt-hour for electricity, it will cost you  $2\frac{1}{2}$  times 0.6c or  $1\frac{1}{2}$ c an hour to operate a 1/3 hp. air conditioner.

Transferring this hourly cost into a monthly figure becomes an individual problem. It may be that you will want to run your air conditioner more or less continuously throughout much of the summer, particularly in southern states, and, in fact, units without automatic controls and

very small units of limited capacity are primarily intended for such operation. If so, the monthly cost will approach 720 times the hourly cost as figured above (roughly \$10.80 per month for a 1/3 hp. unit). If, on the other hand, the unit is to be operated only in very warm weather, as is common in the more temperate North, costs per month will be much less on the average. Depreciation charges are not included in the foregoing figures. As to the life of the units, we believe they should last as long as a household refrigerator.

During a month's operation this unit, if running continuously, would remove almost three million heat units (Btu) from the room. If we assume that 300 watts of incandescent lighting are used 3 hoùrs daily, 92,000 Btu of heat would be added to the room in a month. This amount constitutes only 3 percent of the total heat load, giving an added cost of about 35c a month on the above basis. Fluorescent lighting of equivalent light output would contribute only about 1 percent of the total load and represent an added cost of only 12c.

In the CR test installation, located near Philadelphia, a  $\frac{3}{4}$  hp. air conditioner was operated during the relatively hot summer of 1952 for 397 hours. At the local price for electricity of  $2\frac{3}{4}$ c per kwhr., the cost of using the appliance was only \$11 for the entire season. However, a thermostat is essential to achieve economy of this order; further, such a low cost of operation for the season could not be expected in more southerly locations.

#### What Size Unit Should | Install?

The layman is likely to assume that the selection of a room cooler is a quite simple matter. This is not the case, for according to Herbert L. Laube of the Remington Corp., reported in Heating, Piping, and Air Conditioning, the size of room that any one unit will cool properly can vary over a range of 700 percent depending



York Model A50D DeLuze (1/2 horsepower)

upon eight factors besides the obvious ones of room size, nature of occupants, and climate.

A 3/4 hp. conditioner, for instance, may be suitable for rooms having a floor area from 70 sq. ft. to 500 sq. ft., depending on the following:

(1) The room location. (A north room is much easier to cool than a southwest room which has the sun beating upon it all afternoon.) (2) The window area. (3) The amount of shade. (4) The construction of the building. (5) The ceiling height. (6) The type and construction of the ceiling. (7) Is the room on the ground floor or over occupied space, one that perhaps contains a hot-water heater? (8) Is the unit to be used in the daytime or only at night?

Thus, while CR would like very much to publish a simple guide to the selection of a size of air conditioner, our best advice is to insist upon an actual survey of the room or area by a qualified sales engineer; a serious mistake can be made if the prospective purchaser allows himself to be misled by offers of a smaller unit than the one called for, at a lower price, that "will be almost as good as the more costly model."

What About the Small 1/3 Horsepower Models?

Anticipating a lively argument over the merits of the small 1/3 hp. models, listing at about \$230, which are the ones used as "bait" in display advertising of air conditioning to give an impression of low price, CR asked a number of manufacturers for their candid opinion of the value of these low-capacity units. There was a definite feeling by some manufacturers that the small units were often of little use, though it must be admitted there are small rooms, and spaces close to the unit which could be usefully cooled by the 1/3 hp. motor unit, particularly where operation would be only or primarily during night hours and in a climate that is moderate rather than really hot.

What Points Should I Check Before Looking at Air Conditioners?

1. Are there any building restrictions or apartment regulations which prohibit installation of an air conditioner unit that projects beyond the window line?

2. Are there any window washers' restrictions that would affect your installation? (There are, in some metropolitan areas.)

3. Are there neighborhood noise regulations that would prohibit an installation?

4. If the unit is for a bedroom, would your family mind the noise of operation at night?

5. Will the conditioner fit the particular window available where you would wish to locate it?

6. Is the correct voltage available, and is the wiring to the room in question heavy enough to carry the unit and other loads on that branch circuit? If not, be sure to allow for the necessary electrical wiring changes in the cost.

How Can I Choose Between the Several Models?

Models of the same rated capacity made by different manufacturers have very much the same characteristics; in fact, nine out of thirteen manufacturers use identical hermetically sealed power units, which constitute the heart of the machines, and 11 of the 13 use Freon 12 as

Some Points on Air Conditioner Specifications (See table on opposite page)

To as great an extent as possible, the conditioner specifications have either been made self-explanatory or covered by footnotes. However, a few additional comments are in order.

 Projection into room refers to the amount the conditioner projects inside of the window line. Since this is subject to some variation, the minimum distance is given.

2. Prices do not include installation.

3. The compressor or power unit of the conditioners determines its general performance. Most manufacturers have gone to fully sealed, welded units that must be replaced if anything goes wrong. When these are covered by a 5-year warranty, which should be supplied, replacement should not involve any charge to consumers during the warranty period. Carrier alone retains a semi-sealed unit that can be repaired on the job, a feature more advantageous perhaps to the manufacturer than to the owner of the unit.

4. Btu per hour ratings are either as determined under specifications of the American Society of Refrigeration Engineers, or as stated by manufacturers without explanation of the basis of the determination (latter indicated by an asterisk [\*]).

The air capacity of the evaporator fan is the amount of cooled air actually blown into the room by that fan.

6. Presence of a pump-out control denotes ability to exhaust directly some tobacco smoke, etc., from the room. For any other purposes, such as summer air circulation in the room, the amount of air that can be handled by pump-out units is so small as to discount claims in this direction. For example, the 1/125 and 1/150 hp. motors available on most 1/3 and 1/2 hp. models are not only considerably smaller than the motors of good electric fans, but work under the handicap of having to force air through the resistance of a filter and cooling coil.

7. All 1 hp. models except Frigidaire require 230-volt wiring.

Manufacturer	Model No.	Horse- power Capa- city	Price, Dollars	Weight, Pounds	Com- pressor, Watts Input	Rating in Btu Removed per hour	Water Re- moved, pints per hour	Ther- mostat	Air Capacity of Evap- orator Fan, cu. ft. per min.	Pro- jection into Room, inches
0 1	51-E-1	3/3	240	175	450	4,000	Var.	Opt.	200	0
Carrier	51-E-2	1/2	320	180	750	6,000	Var.	Opt.	200	0
	51-E-3	3/4	400	230	1060	9,400*	Var.	Opt.	300	0
	51-E-4	1	474	235	1300	12,000*	Var.	Yes		-
C1 1	1675	3/4	380	231	1300	8,200	2	Opt.	300	18
Chrysler	1600	1	430	248	1420	10,100	2.4	Opt.	385	18
Camban	ACD-33	1/3	230	120	650	4,010	1.3	Opt.	140	14
Crosley	ACD-50	1/2	330	176	830	6,020	1.8	Opt.	220	13
	ACD-75	3/4	400	198	1260	9,010	2.5	Opt.	300	13
F 11	WH-14	1/3	230	120	650	4,010	1.3	Opt.	140	14
Fedders	WH-16	1/2	330	176	830	6,020	1.8	Opt.	220	13
	WH-19	3/4	400	198	1260	9,010	2.5	Opt.	300	13
F 1 11-1-	Super 33	1/3	230	153	_	_	_		-	13
Frigidaire	Super 50	1/2	320	173.	670	5,520*		Opt.	220	1.3
	Twin 75	3/4	390	245	-	-	-	Yes	-	1.3
	Twin 100	1	460	265	1340	9,875*	-	Yes	_	13
	FA-55-A	14	350	205	930	7,000*	1.1	Opt.	180	15
General Electric	FA-75-A	1/2 3/4	430	245	1360	10,000*	1.7	Opt.	210	15
	Type "Y"	1/2	-	_	820	5,700	-	-	200	12
Kauffman	Type "X"	3/4	-	-	1100	8,800	-	-	300	12
XC. 1 . II	M-132	1/3	250	140	600	4,600*	1.4	No	200	11
Mitchell	M-122	1/2	320	192	920	6,300*	2.0	No	235	13
	M-342	34	380	212	1200	9,100*	2.6	No	290	13
	M-1002	1	460	220	1520	11,200*	3.4	No	_	13
DL "	33-H	1/3	230	104	-	4,000	_	No	130	12
Philco	53-H	1/2	320	150	-	5,600	-	No	220	12
	76-H	34	400	196	-	8,400	-	Yes	300	21
	106-H	1	460	208	-	10,500	_	Yes	_	18
R.C.A.	AC-333	1/3	230	140	650	4,175	1.3	Opt.	140	11
N.C.A.	AC-350	1/2	330	150	830	6,050	1.8	Yes	190	11
	AC-375-S	34	380	198	1260	9,010	2.5	Opt.	300	13
	AC-3100	110.010.0		218	-	10,650 3.1		Yes 378		13
Daminaton	4	1/3	230	120	645	4,010	1.3	Opt.	2.20	13
Remington	6		330	167	810	6,020	2.0	Opt.		12
	8	1/2 3/4	400	186	1240	9,010	2.7	Opt.	330	12
AID or	7950-C	1/2	328	195	900	5,800	1.8	No	200	12
usAIRco	7975-C	34	383	218	1250	8,900	2.5	No	300	12
Vornado	75-WAC	3/4	420	197	1060	8,800	2.5	No	300	10
Vorb	A-30	1/3	230	104	-	4,000	-	No	130	11
York	A-50	1/2	280	150	-	5,600	-	No	220	12
	A-75	3/4	380	195	-	8,400	-	Opt.		19
	A-100	1	460	208	-	10,500	-	Yes	-	19

Abbreviations: Btu — British thermal units; Var. — Variable; Opt. — Optional (at an extra charge); dash (—) — not known

the refrigerant. Prices are very close together, when the presence or absence of the thermostat is taken into consideration. Differences are thus mainly in arrangement of parts, path of air circulation, and general appearance. An additional marked difference is in the size of the auxiliary fan motors used for driving air through the evaporators into the room and through the condenser at the rear of the unit. As pointed out with respect to many appliances, a basic element in selection will be the business standing, reputation among consumers, ability and facilities for servicing, and general experience with small cooling installations of the dealer offering the cooling unit.

What About Central Air Conditioning?

Large units suitable for air conditioning the entire home are in some demand; a fair number of these are being installed in new home developments. They are, however, very expensive and their purchase involves some risk until there has been a period of further development and use in many homes. The objections to them are primarily (1) cost, and (2) they must be used with a warm-air heating system or else there must be a duct system for carrying air throughout the house, and such a duct system can be annoying from the appearance standpoint, and, in some homes, expensive to install. Whole-house air conditioning is more practicable in new homes than in old ones.

It is estimated by one authority that central summer-winter air conditioning will cost \$700 to \$1000 more than the installed cost of a good forced warm-air heating system. There are not at present any considerations which make it likely that other methods than those involving the use of a warm-air distributing system will serve as well. There are serious disadvantages to all other approaches to the problem.

Installations in old houses are not at all impossible, and have been made, but they usually require such changes to the existing heating systems, and pose new obstacles, for example in the location of suitable water supplies, as to leave new buildings as by far the more likely to use whole-house conditioning advantageously.

Comments on a Number of Brands of Window-Type Room Air Conditioners

Carrier (Carrier Corp., Syracuse) 1953 models feature "hideaway" construction which allows window units to be set flush with inside of window when desired; where necessary because of conditions outside the window, a unit can be installed so as to project into the room. Relatively high outside air capacity. All but ½ hp. size have "quick cooling" feature for rapid reduction of temperature in hot room (available as extra on ½ hp.); also *Humitrol* to increase dehumidification on humid days. Front made of plastic (polystyrene). Four-position controls of the ¾ hp. model not considered as desirable as the full thermostatic control of the 1 hp. model. Evaporator fan motor small by comparison with some other makes.

Chrysler Airtemp (Chrysler Corp., Dayton 1, Ohio)

34 and 1 hp. sizes only. Rubber-mounted parts, overload switch on motor. Equipped with a cleanable filter (all other makes listed in this article use throwaway filters). Unique feature on hermetically-sealed power unit is inclusion of charging valves so that unit does not have to be returned to the factory if the only fault is a partial loss of the refrigerant. External thermostat for wall mounting available at \$16 extra; built-in thermostat, \$12 (see text).

Crosley (Crosley Corp., Cincinnati; manufactured by Fedders-Quigan Corp.) Details of construction approximately the same as Fedders. 1/3, 1/2, and 3/4 hp. models available.

Fedders (Fedders-Quigan Corp., Buffalo 7) Three sizes, ½, ½, and ¾ hp. Thermostats about \$20 additional. Rotary grid incorporated in front to direct air stream as desired. Hinged top lid facilitates changing of filters. Rated outside air capacity, low for both cooling and ventilating. Auxiliary motors of less-than-average rating.

Frigidaire (Frigidaire Div., General Motors Corp., Dayton 1. Ohio) Hermetically-sealed, self-oiling, "meter-miser" power unit of Frigidaire manufacture. The 3/4 and 1 hp. sizes have two separate power units to provide selective cooling. One unit supplies adequate capacity to cool a room during an average night or in temperate weather; both units can be operated in severe heat or for quick pull-down. Two power units are used to simplify the problem of running a 1 hp, unit on 110 volts; there is a special (staggered) switching arrangement (only half of the total starting power is drawn from the line at any one time). Dual power unit models are equipped with a thermostatic control on one power unit only (adequate); other models can be equipped with thermostats as accessories (\$20 additional). Light gray finish only. Relatively large single auxiliary motor.

General Electric (General Electric Corp., Bloomfield, N.J.) Two models, ½ and ¾ hp. ½ hp. model is the only one of all the makes listed which has centrifugal fans for both evaporator and condenser instead of the more conventional propeller type. The ¾ hp. unit uses propeller fan outdoors and centrifugal indoors. Both units should be relatively quiet in operation. 7000 Btu rating for ½ hp. unit is somewhat high as compared with common practice, and as this figure was quoted from advertising rather than from ASRE-type tests, it may be on the optimistic side. Amount of cooled air circulated to room and outside air pulled into room, below others listed.

Kauffman (Kauffman Air Conditioning Co., 4505 Olive St., St. Louis) Available in ½ and ¾ hp. models. Either open or hermetically sealed power units available as optional equipment (see text). Brown finish only.

Mitchell (Mitchell Mfg. Co., Chicago) Full range of models from ½ to 1 hp. Ratings in Btu are high, and as they were obtained from advertising and may not be in strict accord with ASRE rating procedures, they may be on the optimistic side.

Philco (Philco Corp., Philadelphia; manufactured by York Corp.) Details of construction are about the same as for York. Four models, ½ to 1 hp.

R.G.A. (Radio Corp. of America, Camden, N.J.; manufactured by Fedders-Quigan Corp.) Two spring-loaded grilles can be adjusted to affect air flow in a number of different ways. Filter easily replaceable through hinged top cover. Concealed "climate control" to adjust unit permanently to local climatic conditions by changing cooling speed and humidifying action. (See Humitrol under Carrier.) Room pump-out control new. Two-tone phantom gray finish. Mcdel AC-375-D (34 hp.), \$400, has built-in thermostat.

Remington (Remington Air Conditioning Div. of Remington Corp., Auburn, N.Y.; manufactured by Fedders-Quigan Corp.) 3 sizes, ½, ½, and ¾ hp. Two-tone design, gray baked enamel finish with beige plastic grille in center. Tracks are installed on window sill to accommodate chassis and give a degree of mobility if the unit is to be stored during the winter.

USAIRCO (United States Air Conditioning Corp., Como Ave., S.E., at 33, Minneapolis 14) 2 models, ⅓ and ¾ hp. Centrifugal blower for room circulation. Auxiliary motors of above-average size. Ability to extract moisture from air, rated high.

Vornado (O. A. Sutton Corp., 1812 W. Second St.,

Wichita, Kans.) 1 model only, ¾ hp. Uses replaceable filter. 9½ in. projection into room, smallest of any models except Carrier. Drain for disposing of condensate from coils, well designed and would permit less re-evaporation of removed moisture than some models examined. Use of centrifugal fan for evaporator coils, considered good. Variable cooling controls claimed, but units equipped with thermostats are not standard. Amount of outside air circulated for both cooling and ventilating, above average.

York (York Corp., York, Pa.) 3/4 hp. model can be equipped with modulation control at \$20 above list which allows ventilation, air circulation, and dehumidification to continue while the amount of cooling is reduced. Below 1 hp., thermostats are available as accessories. 34 hp. model projects 19 in. into room (greater than average). 1/3 hp. model is the lightest conditioner listed (104 lb.), which could be an advantage, especially in installation, if it proves sufficiently rugged and durable to withstand corrosion and not become "tinny." High outside air capacity in ½ to 1 hp. models. ¾ and 1 hp. models are now available with a reverse-cycle refrigerating unit (heat pump) which permits the unit to be turned into a heating appliance during cool weather, with use of the same mechanism. This idea has been applied to complete home air conditioning-heating units but not hitherto to air conditioning units of the window type. 3/4 hp. Model A75MR, list price \$440, has a heating capacity of 9300 Btu per hour at 60°F outside and 70°F inside; 1 hp. Model A100MR, \$500, 10,800 Btu. (Both prices are \$40 above same models with modulation control but without heating feature.) This amount of heat is sufficient to remove the chill from an average room at relatively mild outdoor temperatures, and might prove to be very desirable under certain conditions, particularly where it is unusual to have really cold weather.

# Corrections and Emendations to Consumers' Research Annual Cumulative Bulletin (ACB) and Monthly Bulletins

Slide Projectors Page 88 ACB '52-'53 TDC Vivid Streamliner 500. Change rating from A. Recommended to B. Intermediate. Uniformity of illumination of the

field of this projector not sufficiently good to warrant an A-Recommended rating on the basis of information and experience now available.

Cleaners for Special Purposes Page 160 ACB '52-'53 Tetra "D." In line 2 of listing, the price was incorrectly reported, and there has been a change of address subsequently. At present, Tetra "D" is available in 15-lb. lots, at 32c a lb., plus postage, from Tetra "D" Sales Co., 715 Lincoln Place, Brooklyn 16, N.Y.

A Longer Life for Your House Page 30 Oct. '52 Bulletin The price of the Farmers' Bulletin No. 1993, Decay and Termite Damage in Houses, should have been given. The Bulletin is priced at 10 cents (coin, not

stamps), and copies are obtainable from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.

# Six 1953 Automobiles

#### Four Fords, Plymouth with Overdrive, Pontiac 8

THE CHOICE between the cars of the Big Three group — Chevrolet, Ford, and Plymouth - is a little more difficult than usual this year, for all are good cars with no serious faults or clearly outstanding advantages. For many, the choice made will be based on personal preference, but shopping around to determine which dealer will offer the best trade from a financial standpoint (either as a discount from standard price or as a better allowance on the old car) will often pay for the time spent. The higher price for the Plymouth — \$120 to \$140 — over the Ford 6 and Chevrolet is hard to justify. The Ford 6 was preferred over the Ford V-8 (\$76 higher in price) by most of the test drivers, from the standpoint of its "feel" on the road and response to the throttle. The V-8 with standard transmission gave slightly better acceleration than the 6 similarly equipped, but the purchaser of this car will pay for that advantage, for the gasoline mileage of the V-8 Ford was not so good.

Tests on the *Chevrolet*, though in general quite favorable, were not fully complete at the time this Bulletin went to press; a report on the *Chevrolet* must therefore be deferred to our next issue.

Anyone who may decide he would like to buy a car in a higher price class than his present car should have in mind that in so doing he will very likely have to stay in the higher price class more or less permanently unless he can afford to take a high financial loss when trading in on a lowerpriced car, or unless the used car is sold outright, rather than traded in on a new one. Several examples of the disadvantage of buying a higherbracket car have been brought to CR's attention. In one case the owner of a 1949 Oldsmobile was offered \$500 more allowance for his car when turned in on a new Oldsmobile than he could obtain for the same car turned in on a new Chevrolet. That is a very important and practical point to remember when considering a move from a lower-price-bracket car to a car in a higher group.

#### Fords

#### A (Tentative)

Ford 6 Customline. \$1862 delivered N.Y.C. Optional extras: Fordomalic transmission, \$184; overdrive, \$110; heater and defroster, \$71.50; radio, \$87.50 or \$99.50.

"Standard" model of this car, Ford Mainline, has a delivered price \$92 lower, or \$1770.

#### CR'S FINDINGS ON ROAD TESTS

Speedometer errors were unduly large: at indicated speed of 20 m.p.h., actual speed was 19.2 m.p.h., at 35 m.p.h., 32.6; at 50 m.p.h., 45.8; at 60 m.p.h., 55. Odometer was inaccurate by about 3% (100 miles would be recorded as 103 miles).

Acceleration time from 20 to 50 m.p.h., 15.1 sec., below average; from 40 to 60 m.p.h., 11.6 sec., about average.

Gasoline mileage under test conditions was relatively good: at 30 m.p.h., 23 m.p.g.; at 50 m.p.h., 18.5 m.p.g. (These are not the same figures as miles per gallon under average road conditions; however, the 50 m.p.h. figure for gasoline consumption under test conditions, if multiplied by 0.8 or 0.9, will often be close to that obtained in normal driving.)

Riding comfort was satisfactory. A noticeable improvement over last year's model was the car's ability to take bad bumps or potholes in the road without "hitting bottom"; the improvement has been accomplished by changes in the design of the spring suspension. Car handled easily, and cornering ability at high speeds was good.

#### **OBSERVATIONS AND CONCLUSIONS**

Brakes on this car were very good; at 50 m.p.h. car was stopped in a distance of 124 ft. (Some cars require about 160 ft.) Steering factor, 4.3 (about average). In general, the car was roomy and had sufficient headroom. Interior light was turned on by opening of either front door or by a switch on the dash (a desirable arrangement). Instruments and controls were well arranged, and all knobs were plainly marked with their function, and the lettering was easy to read; the advantage in favor of the Ford in this respect is particularly marked at night. Freshair inlets were located in usual low position at front

(undesirable, from safety standpoint). Heater and defroster were satisfactory. Front fenders, bolted; rear fenders, welded. Vision over hood, good for a tall person, but for a person of average height or less the top of the steering wheel projected to an objectionable extent above the bottom of the windshield and so interfered with the view of the road close to the line of the hood. Vision to rear, good. Engine was very accessible for repairs, which is most desirable. Spare tire was readily accessible, but it was necessary to loosen its mount to remove the tire tools. Trunk space was adequate, but accessibility was only fair, on account of trunk depth. Starter is operated by turning ignition key as far as possible to the right (clockwise). The ignition key serves also to lock the front doors. A separate key is provided for the trunk and glove compartment. The gasoline tank filler pipe is placed behind the license plate in the center of the car at the rear, as in the 1952 model - a good arrangement, but one that could be improved by installation of some sort of latch or catch to hold the license plate down while the gasoline tank is being filled. (Use of the cap for this purpose was not considered satisfactory.)

FORD 6 SPECIFICATIONS

#### Engine

6 cylinders
Overhead valves
Bore, 3.56 in.; stroke, 3.6 in.
Piston displacement: 215.3 sq. in.
Brake horsepower (rated): 101 at 3500 rpm.
Taxable horsepower: 30.4
Compression ratio: 7.0 to 1
Manual choke
Crankcase oil capacity: 4 qt.
Cooling system (pressure type): 15 qt. plus 1 qt. for heater

#### Chassis, etc.

Wheelbase: 115 in.
Over-all length: 198 in.
Width: 74 in.
Height: 62 in.
Gear ratio: 3.9 to 1 (4.1 to 1 optional, 3.31 to 1 with Fordomatic)
Tires: 6.70 x 15 (adequate)
Brake area: 173.5 sq. in.
Brake factor: 45 (good)
Frame: box-type side rails, 5 cross members, two diagonal strut:
Road clearance: 7.1 in.
Turning diameter: 40 ft.

#### Other details

Battery: 90-amp.-hr. (small for present loads) Gasoline tank: 17 gal. Windshield wipers: vacuum type Shipping weight: 3132 lb. Car weight distribution: 56% on front wheels (less lavorable than average)

#### A (Tentative)

Ford V-8 Customline. \$1938 delivered N.Y.C.

Price of optional extras are the same as for Ford 6.

"Standard" model of this car, Ford V-8 Mainline, has a delivered price \$92 lower, or \$1846.

#### CR'S FINDINGS ON ROAD TESTS

Speedsmeter errors were unduly large: at indicated speed of 20 m.p.h., actual speed was 17.5 m.p.h.; at 35 m.p.h., 31; at 50 m.p.h., 44; at 60 m.p.h., 53. Odometer was inaccurate about 4% (100 miles would be recorded as 104).

Acceleration time from 20 to 50 m.p.h., 13.7 sec., below average; from 40 to 60 m.p.h., 10.7 sec., about average.

Gasoline mileage under test conditions was only fair: at 30 m.p.h., 19.5 m.p.g.; at 50 m.p.h., 15.9 m.p.g.

#### OBSERVATIONS AND CONCLUSIONS

For comments on riding comfort and other observations, see  $Ford\ 6$ , which was the same except for the engine. The slightly better acceleration of the  $Ford\ V-8$  over the  $Ford\ 6$  is not sufficient to justify its higher price (\$76), particularly when its decidedly poorer gasoline mileage is considered.

#### FORD V-8 SPECIFICATIONS

#### Engine

8 cylinders, in "V" arrangement "L" head Bore, 3.19 in.; stroke, 3.75 in. Piston displacement: 239 sq. in. Brake horsepower (rated): 110 at 3800 rpm. Taxable horsepower: 32.5 Compression ratio: 7.2 to 1 Manual choke Crankcase oil capacity: 4 qt. Cooling system (pressure type): 22 qt. plus 1 qt. for heater

#### Chassis, etc.

See Ford 6 specifications

#### Other details

Battery: 90-amp.-hr.
Gasoline tank: 17 gal.
Windshield wipers: vacuum type
Shipping weight: 3205 lb.
Car weight distribution: 56% on front wheels (less lavorable than average)

#### A (Tentativa)

Ford 6 Customline Fordomatic. \$2046 delivered

#### CR'S FINDINGS ON ROAD TESTS

Speedometer errors: at indicated speed of 20 m.p.h., actual speed was 19.6 m.p.h.; at 35 m.p.h., 33.8; at 50 m.p.h., 47; at 60 m.p.h., 56.5. Odometer was approximately correct.

Acceleration time from 0 to 30 m.p.h., 8.3 sec., below average; from 20 to 50 m.p.h., 11.2 sec., about average; from 40 to 60 m.p.h., 11.7 sec., average.

Gasoline mileage under test conditions: at 30 m.p.h., 22.7 m.p.g.; at 50 m.p.h., 18.9 m.p.g.

#### A (Tentative)

Ford V-8 Crestline Fordomatic. \$2208 delivered

N.Y.C. Although CR normally tests only 4-door sedans, this 2-door *Victoria* hard-top model was tested because it happened to be the only model of the *Ford* readily available with *Fordomatic* transmission at the time the tests were made.

#### CR'S FINDINGS ON ROAD TESTS

Speedometer errors: at indicated speed of 20 m.p.h., actual speed was 20.1 m.p.h.; at 35 m.p.h., 33.8; at 50 m.p.h., 46.2; at 60 m.p.h., 55. Odometer was approximately correct.

Acceleration time from 0 to 30 m.p.h., 8.6 sec., below average; from 20 to 50 m.p.h., 12.2 sec., average; from 40 to 60 m.p.h., 12.4 sec., below average.

Gasoline mileage under test conditions was not outstanding: at 30 m.p.h., 20.4 m.p.g.; at 50 m.p.h., 16.6 m.p.g.

Fordomatic transmission was pleasing to drive and performed satisfactorily.

#### Plymouth Cranbrook with Overdrive

This car is the same as the *Plymouth Cranbrook* reported in the March issue, except for its higher numerical rear axle ratio (4.1 to 1 instead of 3.73 to 1). Probably, where cost of owning and operating the car is important, a car with over-

drive will be a good investment, from the standpoint of gasoline economy, only in parts of the country where the terrain is relatively flat and one can drive at good speeds for a considerable proportion of the time. For those who make a lot of short trips around town or drive in hilly country or on bad roads where the overdrive may be "locked out" a large part of the time, the overdrive at approximately \$100 will not be a desirable purchase. In the type of use described, gasoline savings will be very small or non-existent, chiefly because the car will be used mainly in third gear (with a less favorable axle ratio than is present in the regular car that does not have the overdrive — 4.1 to 1 instead of 3.73 to 1).

#### A (Tentative)

Plymouth Cranbrook with Overdrive. \$2003.50
plus \$97.50 for overdrive or a total of \$2101 delivered N.Y.C.

#### CR'S FINDINGS ON ROAD TESTS

Acceleration time was about average in both speed ranges in third gear for cars in its price class, but relatively poor in overdrive, as is to be expected: from 20 to 50 m.p.h. — in third gear 14.6 sec., in overdrive 22.9 sec.; from 40 to 60 m.p.h. — in third gear 11.7 sec., in overdrive 18.7 sec.



Figure 1



Figure 2



Figure 3



Figure 4

The above pictures illustrate the difference in front vision from a Ford and a Pontiac with two women of average and small stature, respectively. The upper Figures, 1 and 2, are views as seen by persons 5 ft. 5 in. and 5 ft. 2 in. in height, respectively, in a Ford. The lower Figures, 3 and 4, are views as seen by persons 5 ft. 5 in. and 5 ft. 2 in. in height, respectively, in a Pontiac 8. It should be noted that while the visibility of the road ahead as seen from the Pontiac was not particularly good because of its long hood, it was decidedly better — especially for a person of average height — than that from the Ford, because the upper segment of the rim of the Ford steering wheel stands so high above the seal level of the car. (The cars were located in the same position on the road.)

Gasoline mileage under test conditions was relatively good in third gear, very good in overdrive (about 10% better than *Plymouth* with standard 3.73 to 1 ratio reported in the March 1953 BULLETIS): at 30 m.p.h., 22.7 m.p.g. in third gear, 25.3 m.p.g. in overdrive; at 50 m.p.h., 17.5 m.p.g. in third gear, 21 m.p.g. in overdrive.

#### Pontiac Chieftain DeLuxe

It was expected that the 1953 models of this car would be equipped with a V-8 engine, but that did not materialize; the changes over last year's Pontiac are mostly in refinements of details such as new body styling, and a change in the front suspension to reduce front wheel tilt in cornering. The Pontiac 8 gives the feel of a big car and therefore would be a desirable car to buy for many who are not satisfied with the Ford, Plymouth, or Chevrolet; on the other hand, if the Pontiac has an automatic transmission, there is the disadvantage of the high compression ratio, requiring the use of high-octane gasoline exclusively (which to the user may constitute a serious disadvantage as gasoline of high-octane value would be difficult to obtain or unavailable if there should be a war emergency or other occasion for a general limitation of gasoline supplies). The 7.7 to 1 compression ratio and the cast-iron pistons which are used in the Pontiac 8 are likely to cause pinging as the car accumulates mileage. The Pontiac 8 with the Hydra-Matic transmission is tentatively rated B+. There is some risk, too, that the depreciation in succeeding years may be higher on a 1953 Pontiac 8 than would normally be the case, if it should happen that 1954 models are equipped with a V-8 engine — which seems to CR to be a rather likely development.

#### A- (Tentative)

Pontiac Chieftain DeLuse. \$2272.50 delivered N.Y.C. Hydra-Matic, \$178.35; power steering, \$177.

#### CR'S FINDINGS ON ROAD TESTS

Speedometer errors: at indicated speed of 20 m.p.h., actual speed 19.5 m.p.h.; at 35 m.p.h., 33 m.p.h.; at 50 m.p.h., 47 m.p.h. Odometer was approximately correct.

Acceleration time was about average, not very much different from last year's model, but judged ample for most drivers: from 0 to 30 m.p.h., 5.3 sec.; from 20 to 50 m.p.h., 11.7 sec.; from 40 to 60 m.p.h., 9.7 sec.

Gasoline mileage under test conditions was relatively good in the high "Drive" position, and in this range was somewhat better than that obtained with last year's model: at 30 m.p.h. — high "Drive" 21.5 miles per gallon, low "Drive" 16.9 m.p.g.; at 50 m.p.h. — high "Drive" 17.7 m.p.g., low "Drive" 13.6 m.p.g. (the 50 m.p.h. figures under test conditions multiplied by 0.8 or 0.9 will often be close to that obtained in normal driving).

Riding comfort was very good at both high and low speeds; ability of the car to hold road at high speeds in taking a curve was also very good.

#### OBSERVATIONS AND CONCLUSIONS

The particular car tested was factory equipped with almost every available accessory except power steering. Some of the features, notably the windshield visor and lighted hood ornament, were of questionable value, and the purchaser should take pains to avoid extras which he would not care for and which might actually have disadvantages for him. On the car furnished CR, the "optional" extras came to a little over \$700. The interior of the car was roomy, and there was adequate headroom. Steering factor was 4.6, resulting in somewhat easier steering than last year's model, but slower response. Interior light was turned on by opening either front door or by a switch on the dome light itself. Fresh-air inlets were located at front, in a low position common to

#### **SPECIFICATIONS**

#### Engine

B cylinders in line, "L" head
Bore, 3-3/8 in., stroke, 3-3/4 in.
Piston displacement: 268.4 cu. in.
Brake horsepower (rated): 118 at 3600 rpm. with
6.8 to 1 ratio, 122 at 3600 rpm. with 7.7 to 1
ratio
Taxable horsepower: 36.45
Compression ratio: 6.8 to 1 (with standard transmission) (7.7 to 1, with Hydra-Matic)
Automatic choke
Crankcase oil capacity: 5 qt.
Cooling system: 19.5 qt. plus 1.8 qt. for heater

#### Chassis, etc.

Wheelbase: 122 in.
Over-all length: 203 in.
Width: 77 in.
Height: 63 in.
Gear ratio: 3.9 to 1 (3.077 to 1 with Hydra-Matic)
Tires: 7.10 x 15 (slightly overloaded)
Brake area: 171 sq. in.
Brake factor: 40 (somewhat low)
Frame: channel section side rails, X members and cross members
Road clearance: 6.5 in.
Turning diameter: 40.3 ft.

#### Other details

Rher details

Battery: 100-amp,-hr.
Gasoline tank: 20 gal. (formerly 17-1/2 gal. on 1952 models)

Windshield wipers: vacuum type (booster extra)
Shipping weight: 3471 lb. (3596 lb. with Hydra-Matic)
Car weight distribution: 55.5% on front wheels (slightly less favorable than average)

many of today's cars, where they readily pick up exhaust fumes from the car ahead. Instrument panel was well arranged and lighted, but not all of the knobs were identified. Heater and defroster were satisfactory; their controls were simpler and more convenient than on most of today's cars. Front fenders, bolted; rear fenders, welded. Brakes required more than normal pressure, and stopping distance from 50 m.p.h. was 148 ft. Emergency brake had red signal light which flashed when brake was on (a desirable extra). Vision over hood, only fair for a tall person, poor for a short person: the hood is exceptionally long because of the great length of the straight-8 engine: vision to rear, very good. Starter is operated by continuing turning of ignition key to the right (clockwise) in the manner customary with a number of recent model cars; this key also locks the front doors; a separate key is provided for the trunk and the glove compartment, which some find a desirable arrangement where parking-lot problems are involved. The spare tire was readily accessible, and the trunk space was adequate. Wheels and tires were readily accessible for servicing (when not equipped with fender aprons or panels). The outside windshield visor (an optional extra) is definitely not recommended; the visor and the tinte! glass windows and windshields markedly darkened the interior of the car. The visor obscured the

traffic signals: the driver had to rely mainly on a small prism-lens gadget mounted on top of the dash to tell when traffic lights changed. The Autronic Eye, which was expensive (about \$50), dimmed the headlights of the car on which it was installed when the headlight beam of any oncoming car struck a photoelectric cell; it had merit, but such a device will not solve the glaring headlight problem unless and until an equivalent device is operating on a great majority of cars. The Autronic device had the disadvantage that it dimmed headlights for the wrong reason at times, for example when it picked up the light from street lamps, bright signs, etc. Its response, however, could be eliminated and the lights kept in the "bright" position by the driver's holding a special floor button down with his foot (the usual floor button was present also for dimming the lights). The additional control may be a necessity in the present state of development of the Autronic device, but like the gadget for viewing overhead traffic lights in spite of the blocking of the view by the visor, it is not a wholly desirable feature: there are too many things to be attended to now on a good many cars, considering the limitations and skills of their drivers. The Hydra-Matic transmission performed in a very satisfactory way and has a good record of past performance with a minimum risk, we believe, of need for servicing and other troubles.

#### Piano Recordings

A DISCERNING READER has raised some questions about piano recordings which he has found unsatisfactory when played in a sound system of the highest grade, one that is capable of giving very satisfactory reproduction of other kinds of records. Not one solo piano recording on LP, he commented, stands up as real live piano. He cites an expert who had named a few test records used in trying high-fidelity systems, but did not list one record of a piano selection.

Consultants report that there is among critical music-lovers a steady criticism of LP piano records, even by those who approve the LP's for all other kinds of music. Possibly it is the "wow" and "flutter" which seems to be built into too many of these slow-turning records. (Examination of tape recorders has shown that only the costliest can reproduce the piano, whose tones are peculiarly sensitive to slight speed variations, with satisfaction.)

In brief, LP records of piano music do not, at

this stage, match the quality found in many orchestral and chamber recordings. Perhaps some friendly criticism by letter from well-informed consumers, addressed to Columbia Records, Inc., and the RCA Victor Division of the Radio Corporation of America, will have an effect in persuading record manufacturers of the value of concentrating a bit on this problem.

One consultant suggests that solo piano records might well be bought on a returnable basis, with the understanding that if the fidelity on the user's playback equipment is not satisfactory, the record may be returned for credit. Consumers should note, however, that ordinary playback equipment may be to blame for a considerable, amount of "wow" or unsteadiness of pitch. Record changers do not give the needed steady running speed; only top-grade turntables can give the very steady rotation that is requisite for playing the kinds of records that are peculiarly sensitive to slight variations in turning speed.

# Don't Paint Your House too Often

Painting a house too frequently may leave it in worse condition than if it is painted only occasionally. Recent studies show that too much paint may cause cracking and scaling of an unsightly character, which leaves the wood poorly protected.

MANY PEOPLE suppose that the most desirable practice is to paint a house as often as it seems to need repainting for the sake of appearance. However, tests recently reported by the U. S. Forest Products Laboratory

Figure 1

Close-up views of cross-grain cracking of paint after 15 years of maintenance, according to different programs of repainting in the period 1936-1951. 978 was repainted every two years, except in 1950; No. 998, every three years, both with one coat at a time; 1008, two coats every three years; 1028 was repainted with one coat; No. 1038 with two coats every four years; 1048 with two coats every five years. The paint used was a tilanium-leadzinc paint of good quality, representative of much commercial production in 1936, when the tests were started.

at Madison, Wisconsin, have shown very clearly that too much painting can be a highly undesirable practice, for often overfrequent painting will lead, in the course of years, to a kind of cracking and scaling of paint which is very objectionable and will ultimately require drastic treatment. When paint has been applied in excess, it will often be necessary to remove the old coating completely by the use of a blowtorch or paint remover; this is a slow and expensive process, and one which brings the cost

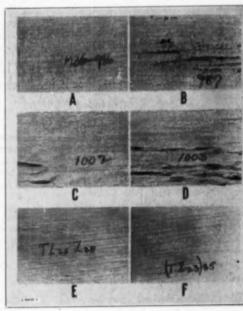


Figure 2

This shows by controst the normal behavior of the paint job on a house. E is the same type of paint shown in Figure 1 four years after the wood was painted for the first time in 1936. A shows the normal checking of pure white lead paint; B, the crumbling proceeding out of checking; C, the checking of a lead-zinc paint that is also cracking and curling; D, the flaking that develops from cracking and curling of the lead-zinc type paint; F, a leadless titanium-zinc paint which is cracking inconspicuously in this, the first painting of the wood, but developed very conspicuous cracking later after it had been repainted.

per paint job on the house up to a high figure.

The nature of the harm done by excessive painting varies with the kind of paint used, and cannot be predicted with certainty. When painting is done too often, the normal way of aging of the paint is greatly changed. One effect is the development of conspicuous cracking in a cross-grain direction "which dominates subsequent developments and leads to unsightly scaling." Eight of 12 paints tested showed crossgrain cracking within 15 years when repainted every six years; but eight of 12 paints cracked across the grain by the sixth or eighth year when

the wood was repainted every two or three years.

If the expensive and difficult job of removing the old paint down to the wood is to be avoided as long as possible, it will be safest to paint no oftener than two coats every six years, and still longer intervals would be better. If repainting must be done more often for any reason, only a single coat should be applied.

Readers especially interested in painting problems may wish to see the original publication on this topic, which was in the Journal of the Forest Products Research Society, Vol.

2, No. 5, page 173 (December 1952).

# Slide Projectors

# For 35 mm. and Bantam $(1-1/8 \times 1-9/16$ in.) Transparencies in $2 \times 2$ in. Slides

#### A. Recommended

Spencer MC Delineascope (American Optical Co., Chelsea, Mass.) \$99.50 with case and strip-film attachment. Lens, 5-in. coated triplet f/3.5. Focused by rotation of lens in helical mount. Equipped with easily removable 300-watt bulb, double condenser of new design, heat-absorbing glass, and fan for cooling. Had lever device for elevating front. Strip-film attachment, which takes rolls of 35 mm. perforated film, will project either single- or double-frame pictures. Resolving power of lens, good. Evenness of illumination, excellent. Light output, very good. Cooling was adequate.

#### C. Not Recommended

Tower (Sears-Roebuck's Cat. No. 3—6379M) \$22.95; case, \$5.25 extra. Lens, non-coated Tower f/3.5 of 5-in. focal length. Focused by sliding the plastic tube containing the lens; a small pressure spring serves to hold the tube in position. Projector is equipped with a 100-watt spherical bulb, double condenser, and fan for cooling. Front could be elevated by turning a knurled nut. There is no slide carrier; each slide is pushed out of the projector by the following one. Condenser is not easily accessible for cleaning (undesirable). The lens had considerable color fringing and its resolving power was poor.

Light output was low, and the evenness of the illumination was only fair. Cooling was adequate.

# For $2-1/4 \times 2-1/4$ in. and $2-1/4 \times 1-5/8$ in. Transparencies in $2-3/4 \times 2-3/4$ in. Slides

#### A-

Spencer Reviewer (American Optical Co., Chelsea, Mass.) \$119.50 with 7-in. modified Petzval-type f/3.5 lens and carrying case. Price includes federal excise tax. Carrier and adapter for 2 x 2 in. slides, \$4.60 extra. Lens is focused by rotation of its helical mount. Equipped with easily removable 500-watt bulb, triple condenser, heat-absorbing glass, and cooling fan. Had lever device for elevating front. Resolving power of lens, good. Evenness of illumination when projecting large slides, fairly good. Light output, very good. Cooling was adequate. (For the same projector with lens of 5-in. focal length, see B-Intermediate listing below.)

#### B. Intermediate

Spencer Reviewer (American Optical Co.) \$104.50 with 5-in, coated triplet lens and carrying case. Price includes federal excise tax. Resolving power of lens, good. Light output, good. Evenness of illumination, poor. Bulb position was adjustable, but range was insufficient to permit adjustment to the best position for the 5-in, lens.

# Loud-Speakers for High-Fidelity Reproduction

IT IS A FACT well known to audio engineers that the loud-speaker is still the weak link in the chain of components so many thousands of people are assembling for listening to high-fidelity musical reproduction in the home or in auditoriums of schools and colleges. Unfortunately, the splendid performance that is claimed in the advertising is seldom achieved in actual use of the speakers. Only a few years ago manufacturers were accenting the treble response of their speakers, and at that time an exaggerated high frequency came to be associated in the minds of many with high fidelity; this error is now being corrected, and the public and the speaker manufacturers are awakening to the beauties of the bass register. In order to achieve this, many of the speaker manufacturers are marketing some sort of "horn-loaded cornerspeaker system" which does have decided advantages in producing a substantial output in the bass region. For reproduction of the complete musical range, a loud-speaker should be able to reproduce smoothly and faithfully the notes from a 16-ft. organ pipe - about 32 cycles per second - up to the high-frequency tinkle made by jingling keys, or the overtones necessary for realistic reproduction of the oboe (about 15,000 cycles). There has been some improvement in speakers in the last two or three years, but nothing of very striking importance, especially in speakers, that the average consumer could afford. It should be remembered, however, that the effective use of a speaker calls for good judgment in design and that any speaker will have much improved low-frequency response if it is located near the junction of the floor and wall, and still better if located near the junction of two walls and the floor - i.e., in the corner of a room.

A corner location serves to increase the effective radiating area of the cone and thus to improve the bass response. Merely mounting the speaker baffle in a corner does not constitute horn loading, however, nor does the sort of enclosure shown diagramatically in Figure 1. The latter is similar to a manufactured cabinet (Cabinart) which its maker refers to as "horn

loading." While it is true that such an enclosure will function satisfactorily only in a corner location, true horn loading with this cabinet is practically non-existent; indeed, at low frequencies it functions in a way unfavorable to good "clean" bass tones. Two other enclosures (Electro-Voice "Aristocrat" and Royal), although well made, function in much the same way. Stephens have been more realistic in their claims for their corner system and offer, with much the same design, somewhat the same results as were obtained by Lansing with their excellent D-1004 marketed several years ago.

Many new speakers have become available in the past year or two. Several of these show decided improvement over some of the speakers considered good only a few years ago. Electro-Voice, for instance, have added to their line several new and relatively inexpensive units with commendable features.

The speakers which, during the years just past, presented the widest smooth range of response remain unsurpassed, and, for the most part, unequalled. Among the 15-inch single-cone speakers, the Lansing D-130 is still the most efficient, and, within its range, has the smoothest response curve (i.e., free from sudden increases and decreases in sound output as one goes up the scale). The Altec 604B (the 604C is the latest version) and the RCA LC1A remain, along with the newly-improved Stephens 106AX, about equally acceptable as coaxial two-way systems. The Klipschorn remains the standard



Figure 1 — Cross-sectional drawing of a so-called horn-loaded corner speaker.

for horn-loaded corner systems and has achieved wide notice and approval. This speaker is considered to be without a peer in extreme low-frequency reproduction, unless one goes into the class of very large speakers suitable only for an auditorium, concert hall, or theater. It still costs \$600 or more to obtain a speaker with a smooth, even response and low distortion in the middle and extreme audio-frequency ranges. Even 40 to 8000 cycles with smooth response is not now available from any but the very costly systems, such as the Lansing D-1004 and the Klipschorn. The advantage of smooth reproduction in the range from 5000 to 15,000 cycles is commercially available among speakers tested by CR only in the Jensen G-610 triaxial. (Practically, few will find use for good performance in the extreme upper frequency range, as there is very, very little musical source material which provides clean output above 8000 or 10,000 cycles.

The ratings assigned to those speakers included in CR's latest study are based almost entirely on measurements of impedance for resonance and enclosure-loading effect, and of sound-pressure for smoothness and frequency range. Maximum power input at 5 percent distortion was measured and sound-producing capability and efficiency compared. Listening tests were

also made. For the reader's convenience, we have included listings of all speakers tested to date by CR and still marketed. Somewhat detailed listings are given for those speakers covered in the present study, and brief listings without comment for speakers tested previously. (The 1952-53 Annual Cumulative Bulletin, pages 123-125, gives more information on the latter.) It should be noted that the ratings for the speakers apply within their particular size and type classes. An 8-inch speaker considered worthy of an A-Recommended rating should not be expected to give sound quality comparable with a 12-inch speaker that received an A rating. Likewise, an A-Recommended single-cone 15-inch speaker will not be comparable to an A-Recommended 15inch coaxial unit. The prices given are those prevailing at the large and well-known mailorder radio and audio supply houses.

## Cone Speakers - 8-in. to 10-in.

#### A. Recommended

Permo-Flux "Royal Eight" 8T8-1 (Permoflux Corp., 4900 W. Grand Ave., Chicago 39) \$13.25. 1

Altec-Lansing, Dia-Cone Speaker 400B (Altec-Lansing Corp., 161 Sixth Ave., New York 13) \$22.50.

Lansing "Signature," Model 208 (James B. Lansing
Sound, Inc., 2439 Fletcher Dr., Los Angeles 39)
\$24.30.

Hartley-Turner, Model 215 (H. A. Hartley Co., Ltd., 152 Hammersmith Rd., London W. 6, England) \$54.

Wharfedale W10/CS (Available from British Industries Corp., 164 Duane, N.Y.C., and several other radio-audio mail-order houses) \$34.15.

#### B. Intermediate

Jensen Extended Range P8SX (Jensen Mfg. Co., 6601 S. Laramie Ave., Chicago 38) \$9.

#### Cone Speakers - 12-in.

#### A. Recommended

Electro-Voice, SP12-B (Electro-Voice, Inc., 418 Carroll, Buchanan, Mich.) \$26.50. Rated 15 watts above 30 c.p.s., 20 watts above 100 c.p.s. 8 ohms. Frequency response smoother than with speakers of older design having a small voice coil; considered comparable to Altec 600B in this respect. Efficiency lower than Altec 600B but considered somewhat higher than GE S1201D. Measured frequency response, 65 to 6500 c.p.s. Freedom from directional effect ("beaming") of higher frequencies, fair; better than small-voice-coil cone speakers but not comparable to multicellular horns, such as are used with Altec 603B and the Lansing D-130.

Jensen, Model K-210 (Jensen Mfg. Co.) \$23.25. 2

University Diffusicone 12 (University Loudspeakers
Inc., White Plains, N.Y.) \$26.50. Rated 30 watts.
8 ohms. Very good performance, about equal to
Electro-Voice SP12 B but efficiency considerably lower. Power-handling capability, very good.

Altec-Lansing Dia-Cone 600B (Altec-Lansing Corp.) \$46.50.

\$53. Rated 25 watts. 8 ohms. Response curve was indicative of very good performance. Efficiency, very high, about equal to that of Altec 600B. Powerhandling ability, very good. Note: tests and measurements were made with speaker mounted both in the manufacturer's recommended enclosure, and in a well-constructed corner-mounting reflexed box, which gave better performance in the bass.

Wharfedale W12/CS (Wharfedale Wireless Works, Bradford Rd., Idle, Bradford, Yorkshire, England) \$58.

#### B. Intermediate

General Electric S1201D (General Electric Co., Syracuse) \$20. 1
General Electric S1203D (General Electric Co.) \$14. 1
Jensen P12SX (Jensen Mfg. Co.) \$12.50. 1
Permo-Flux 12T8-1 (Permoflux Corp.) \$16.20.
Rated 10 watts. 8 ohms. Efficiency, very low, comparatively. Reproduction ragged. Distortion high

in bass. Performance not considered comparable to that of the popular GE SI201D. Power-handling capability, surprisingly high, but level of sound output, because of low efficiency, was considered insufficient for critical listener. Beaming effect at higher frequencies was excessive.

Stephens 112 FR (Stephens Mfg. Corp., 10416 National Blvd., Los Angeles 34) \$30.90. Rated 15 watts. Smooth reproduction of lower and middle range. Slightly preferable to GE S1201D, but not the equal of the Electro-Voice SP12-B.

#### Cone Speakers - 15-in.

#### A. Recommended

Altec-Lansing Dia-Cone 603B (Altec-Lansing Corp.)

Electro-Voice SP-15 (Electro-Voice, Inc.) \$70.50.

Rated 30 watts. 16 ohms. Very good performance. Efficiency, very high. Power-handling capability, very good and slightly above the Electro-Voice SP-12, but see note in listing of Sp12.

Lansing D-130 (James B. Lansing Sound, Inc.) \$70.40.

#### B. Intermediate

Stephens 102FR (Stephens Mfg, Corp.) \$69. Rated 20 watts. 16 ohms. Efficiency, high. Beaming effect pronounced. Power-handling capability, very good. Considered not as desirable overall as either Lansing D-130 or Electro-Voice SP-15.

### Coaxial and Triaxial Speakers

#### A. Recommended

Jensen, Model G-610 Triaxial (Jensen Mfg. Co.)
\$225 with dividing network but no cabinet. Type M
cabinet and matching transformers, \$122 extra. AA3
Altec-Lansing 604B (Altec-Lansing Corp.) \$159. 3
Jensen, Model H-510 (Jensen Mfg. Co.) \$91. 3

RCA LC1A (Radio Corp. of America, Camden, N.J.)

Speaker and roll-off network only, quoted by manufacturer and dealers at \$110 to \$154; \$250 in cabinet, with high-frequency control.

\$122. Rated 20 watts. 16 ohms. Response curve was "smooth" and typical of curves obtained from the finest speakers. Decline at high-frequency end of range, smooth and gentle; response judged not as smooth as with Lansing- or Altec-equipped Klipschorn. Efficiency, very high, comparable to Altec-Lansing 604B and much higher than RCA LCIA. High-frequency dispersion wide and smooth. Powerhandling capability, very good. Preferably used in cabinet having volume of at least 8 cu. ft., for best bass response.

#### B. Intermediate

RCA 515S1 (Radio Corp. of America) \$30.

University 6201 Coaxial (University Loudspeakers, Inc.) \$44.10. Rated 25 watts. 8 ohms. A true coaxial speaker and the only 12-in. coaxial unit known to be manufactured. Efficiency, though not comparable to Electro-Voice SP12-B, was ample. Power-handling capability, very good. While rated B. Intermediate as a coaxial speaker, it would be rated A. Recommended when compared with non-coaxial 12-in. speakers (some of which are in the same price bracket as the 6201). We believe that most listeners, would likely prefer the listening qualities of the Altec 600B, which offers smoother response, although over a narrower range.

#### Two-Way Systems (Separate Woofer and Tweeter)

#### A. Recommended

Klipsch Speaker System (Klipsch & Associates,
Hope, Ark., manufacturer and distributor) \$516 to
\$696, including cabinet.

AA3

Lansing D-1004 (James B. Lansing Sound, Inc.)

\$390, including cabinet finished in mahogany. AA3

Electro-Voice 101E (Electro-Voice, Inc.) \$276, including Regal cabinet.

Lansing D-1000 (James B. Lansing Sound, Inc.) \$219, including cabinet.

Altec-Lansing 820A (Altec-Lansing Corp.) \$525, including cabinet. Rated 30 watts. 6-12 ohms. Uses 2 Altec 803 woofers, Altec 802 high-frequency driver, and Altec N-800D crossover network. Efficiency, slightly lower than Klipsch, slightly higher than Lansing D-1004. Power-handling capability, excellent, and manufacturer's 30-watt rating is conservative. High-frequency response considered not as smooth as with Lansing D-1004. Bass response considered slightly inferior to that of either the Lansing or Klipsch. The main advantage of the 820A, capacity to produce a large volume of sound, would be of interest if the unit was for use in an auditorium or theater.

#### B. Intermediate

Audio Pacific Multiple Loudspeaker System (Audio Pacific Co., 6110 Santa Monica, Hollywood 38) \$150.

## High-Frequency Speakers (Tweeters)

#### A. Recommended

Lansing "Acoustic Lens," Model 1290 (James B. Lansing Sound, Inc.) \$31.50 with Model 1217 horn; \$114, complete with Model 175 driver. Rated 25 watts at frequencies above 1200 c.p.s. 16 ohms input impedance. Directional characteristics were compared both by measurements and in listening tests with the Lansing Multicellular Horn. On both bases, there was a preference for the "Acoustic Lens" speaker. CR does not believe that the owner of a Multicellular Horn, part of the Lansing D-1004 and

D-1000 systems, would be justified — unless money is no object — to make a change to the "Acoustic Lens"; the improvement in results (made at a substantial extra cost) would not ordinarily be appreciated.

3

#### B. Intermediate

Jensen Q8P High Frequency Speaker and A40-1

Dividing Network (Jensen Mfg. Co.) Speaker,

\$7.60; Dividing Network, \$20.60.

Racon CHU-1 and CHU-2 Tweeters with CON-15R

or CON-20 Crossover Network (Racon Electric

Co., Inc., 52 E. 19, New York 3) Tweeters, \$17.60 and \$22; Crossover Networks, \$6.50 and \$13.20. 1

University 4401 Tweeter and 4405 Filter (University Loudspeakers, Inc.) Tweeter, \$11.80; Filter, \$5.90. 1

Atlas HF-1 High Frequency Tweeter and Crossover Network (Atlas Sound Corp., 1443 39 St., Brooklyn 18, N.Y.) \$59.

Masco High Frequency Tweeter HFT-100 (Mark Simpson Mfg. Co., 32-38 49 St., Long Island City, N.Y.) \$14.40. Rated 8 watts. 3.2 to 16 ohms. 1

#### Faults of New Car Styling

A MAN writing a letter to The Wall Street Journal has made some telling points regarding what is wrong with today's cars, points which very well confirm objections which Consumers' Research has raised to the design of today's automobiles. One outstanding example of the trend toward unsatisfactory designs has been the manufacturers' discontinuance of the useful and damage-preventing running boards without any sign of a desire or sanction on the part of the people who buy and use the cars.

Mr. D. S. Purdy, writing from Athens, Ohio, complains that when he was unfortunate enough to get off the road, and have his car slide against a tree or embankment, the old-style running board took the punishment, usually with little cost to the owner; without the running board, costly damage is done.

The objections by Mr. Purdy also include criticism of the great glass area in the car — with greatly decreased structural strength — on account of which tipping or rolling over of the car is likely to be a far more serious matter than in the older models, which had enough substance in sides, doors, and corner posts to stand the stresses of overturning and perhaps even of rolling down an embankment.

Another letter writer complained that a slight scraping of the chromium strip along the rear fenders of his car cost him a repair bill of \$17.50, and the entire upholstery of the rear had to be removed on that side to permit the work to be done. He complained bitterly about the rear "wheel pants," which it took a half hour of skinned knuckles and profanity one cold night to remove so that a tire could be changed. Our own experience has been that at times even service station men are unable to get the wheel pants off readily and without damage to the finish. Every time we see a Model A Ford, a Jeepster, or the popular British M.G. we wonder why it ever occurred to the automobile manufacturers that it was so important to bury the wheels in an enclosure and so unimportant to make them accessible to the operation of tire changing. Some persons think manufacturers of automobiles and appliances are just mean enough to want to force everyone needing a repair or servicing operation into an authorized service station but, if that is the purpose, it is a self-defeating one, for a lot of consumers distinctly resent a tendency to make it hard for anyone lacking a host of special tools, devices, and equipment to do even a simple repair or adjustment job on an automobile or appliance.

## Tests of Sears, Wards, and Rival Egg Beaters

SHORTLY after the report on egg beaters appeared in the June 1952 Consumers' Research Bulletin, Sears, Roebuck & Co. and Montgomery Ward & Co. informed CR that the Sears' Maid of Honor and the Montgomery Ward beaters tested were old models long out of production and not representative of the beaters sold at that time. Both beaters had been rated C. Not Recommended because the gears jammed in use so that the beaters would not turn. Other beaters of these brands were subsequently ordered by a buyer for CR.

The gears of the Sears' Maid of Honor beater (Cat. No. 11—4010) bought in June 1952 were in truth of better design (see Figure 1), and did not give trouble with binding and sticking in use as those of the previous model did. The new Sears' beater was much more durable and gave much better performance than the one tested previously.

On the other hand, a Montgomery Ward beater which was received on mail order in July 1952 was the same as the Ward beater having the identical catalog number (86-4146) that had been reported unfavorably in CR's June 1952 BULLETIN. Another Montgomery Ward beater with the same catalog number purchased by mail in March 1953, however, was of a different design (as to gear details) and its gears were good, and the same as those of the new Sears' Maid of Honor. Consumers sometimes have cause to regret (as the buyers of the earlier model of the Ward beater would in this case) that a given mail-order catalog number does not necessarily go with a definite product, but may represent an article of one grade, quality, or performance at one time, and a quite different product at

The Rival Speed Mixer was also tested because the manufacturer claimed that it was different from the Yoder to which he had bought the rights. (The Yoder was also discussed in the June article.) The Rival showed improved performance in the use test and better durability in the life test than the Yoder, but was not so good as the A-Recommended beaters. The newest Sears', Montgomery Ward, and Rival beaters tested all warrant a higher rating then their predecessors reported on in the June 1952 BULLETIN, however. The egg beaters that were listed in the June 1952 article are given after the asterisks in the three groups of listings.

#### A. Recommended

Maid of Honor "Chef Quality" Egg Beater (Sears-Roebuck's Cat. No. 11—4010) \$2.66, plus postage. Wooden handle, and well-designed gears made of nylon (see Figure 1). Stainless-steel dashers did not rust when immersed in water 24 hr. Five turns of the dashers for one turn of the crank. Good performance in the use tests.

Montgomery Ward Egg Beater (Cat. No. 86—4146)
\$2.98, plus postage. Only beaters having well-designed nylon gears like those of the Maid of Honor pictured on the left in Figure 1 are A. Recommended.

Maynard No. 77 Speed Mixer, \$4; Ekco Best Beater No. 676, \$5.

#### B. Intermediate

Rival Speed Miser, No. 425 (Rival Mfg. Co., Kansas City 8, Mo.) \$10, plus postage. Has 3 attachments, a single dasher, a double dasher, and a whipper. One shaft turns four revolutions to one turn of the crank, the other, five. Handle of plastic. Stainless steel dashers which did not rust when immersed in water 24 hr. Fairly good performance in the use tests. 3

Edlund Egg Beater, \$1.25.

# C. Not Recommended

Red-E-Mixer, \$1.79; Maid of Honor "Chef Quality" Egg Beater, Sears-Roebuck's Cat. No. 11—4010, and Montgomery Ward Egg Beater, Cat. No. 86—4146 (with poorly-designed gears, the same as those on the right in Figure 1); DeLuxe Super Whirl Egg Beater, \$4; Yoder High Speed Food Mixer, \$6.

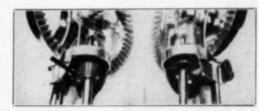


Figure 1

Left — the well-designed nylon gears found on the new Sears' Maid of Honor and Ward beaters. Right — the poorly-designed nylon gears found on the Maid of Honor and Ward beaters reported on in the June 1952 Bulletin. On the gears shown at the right, the endwise clearance of the large driving gear between its bearings was far too large. This excess clearance contributed to the difficulty with gear action reported.

# A Drier for the Clothes Closet

DAMPNESS in closets, often followed by a growth of mildew on shoes and clothing, presents a considerable problem to households throughout most of the United States. Although this is especially true in the summer, and in the southern states, mildew may cause trouble as far north as Alaska, and at any season if the relative humidity stays for some time at about 70 percent or higher. It has been estimated that damage by mildew in the U.S. costs over 100 million dollars every year.

Mildew is not a simple stain as it sometimes appears to be, but is a form of plant life, a fungus, which usually grows best in a warm, moist, and dark environment. The fungi use organic matter, such as shoes and clothing, as a source of food, and if left undisturbed too long, completely ruin the material on which they have grown, destroying its appearance and strength. Before putting winter or rainy weather clothes away, they should be thoroughly cleaned and dried, and then stored in as dry a place as possible. ¶Clothing in a closet should be hung in a way to permit free circulation of air.

An effective method of preventing or retarding the growth of mildew on clothes in closets is to warm the air so as to reduce its relative humid-

The Airdri Electric Closet Drier

ity. A small increase in temperature with a corresponding decrease in relative humidity of a few percentage points may be enough to prevent the formation of mildew on clothes or shoes in a closet.

There are now several small heating units on the market for this purpose; one of these, the Airdri electric closet drier, was recently tested by Consumers' Research. This heating unit is installed by hanging it on a small nail about 12 inches above the floor in the closet, and allowed to run continuously during the periods when mildew might develop. The warm air circulates through the closet by convection. The Airdri is a metal-shielded resistance-heating unit, for use with either a.c. or d.c. It comes equipped with 53/4 feet of cord, but since most closets do not have electrical outlets, it may present some difficulty or electrical hazard in wiring. The National Electrical Code, the national standard covering problems of electrical fire hazard, approved by the National Board of Fire Underwriters, specifically prohibits the use of flexible cord, such as that on the Airdri, where it is run through walls or doorways or floors or attached to building surfaces; thus to use such an appliance an expensive electrical wiring job may be required. A flexible electric cord passing under or over a door presents a serious hazard of short circuit and a possibility of fire which must be avoided, even at the risk of mildewed clothing. A fire insurance company might in some cases refuse payment for a substantial fire loss if caused by such illegal wiring; in practice, they would perhaps not resist payment on a loss but might subsequently refuse to issue a policy on the property. A "code violation" on a business property, where there are fire-hazard inspections, would probably cause a rise in the rate on the insured property, or in an extreme case might even result in the insurance company's canceling the policy.1

<sup>1</sup>No valid general statement can be made regarding insurance companies' practices in payment of losses of insured persons where questions arise in respect to possible violations of the electrical code. Very likely the situation depends upon local fire experience and loss-ratios; in some communities and with some agents the scales may be tipped in favor of the insured; in other cases, the companies may be more inclined to take a stiffer position in paying for losses where carelessness or a faulty wiring installation might have been a factor.

The effectiveness of the Airdri depends on the temperature and humidity in the closet, the size of the closet, how often and how long the door is opened, and several other factors. Some correction of excessive humidity could be obtained by installing an electric light bulb in the closet to warm the air, but the National Electrical Code does not permit any 110-volt light to be installed in a closet near the floor, where it would be most efficient in combating mildew. To meet the code's requirements the light unit must be installed in the ceiling or on the wall above the door, and pendant fixtures are not permissible in closets. The light, if one is used for the purpose, should be allowed to burn continuously during very humid weather and must be well shielded so that no clothing or other combustibles could under any circumstances come into direct contact with the hot lamp bulb. The wiring precautions for a lamp would be the same as for the Airdri. For a brief discussion of other closet lights and closet wiring in general, see the article on page 20 of the March 1953 Con-SUMERS' RESEARCH BULLETIN.

Another closet drier, the Dampp-Chaser, sold by Dampp-Chaser, Inc., P.O. Box 520, Hender-

sonville, N.C., is available at \$6.95. It is a tube 36 inches long, containing a 25-watt heating element, which is placed on the floor of the closet. The *Dampp-Chaser* is listed by the Underwriters' Laboratories but has not been tested by CR. The same comments, of course, apply to the power cord as have been mentioned regarding the *Airdri* device.

#### B. Intermediate

Airdri Electric Closet Drier, Model 9 (Airdri Associates, 1900 Thirteenth Ave. N., St. Petersburg, Fla.) \$5.95. 115 volts a.c. or d.c. 25 watts (cost to operate, about 65c a month). 834 x 3 x 3 in., with 534 ft. of rubber-covered wire. Shock hazard as indicated by leakage current was negligible. Passed high-voltage test for breakdown of insulation. Carries Underwriters' Laboratories' seal. Easy to use and safe, provided a proper electrical outlet is available, within the closet, as required by the National Electrical Code. Its value in preventing mildew would depend on the conditions of temperature, humidity, and air circulation in the place of use; probably in most cases it would serve its purpose satisfactorily.

#### Abridged Cumulative Index of Previous 1953 Consumers' Research Bulletins

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findicates that listings of names or brands are included.

## Regulating Room Temperature to Save Fuel

THE question frequently arises whether any fuel is saved by turning the thermostat of the heating system to a lower setting at night in homes where, as usually is the case, considerably less heat is needed at night than in the daytime. Studies by the University of Illinois have shown that when all bedroom windows were left closed at night and the thermostat setting was reduced 6 degrees (from 72°F to 66°F) there was a fuel saving of about 5 percent as compared with the situation when the thermostat setting was left unchanged during all hours of the day and night. The time required in the morning for the heating system to bring the house back to normal temperature was, of course, a factor in the problem; it was found that restoration to the normal daytime temperature took about two hours when the temperature outdoors was 50 degrees, and up to four hours when the outdoor temperature was 15 degrees.

The saving described is probably not worth while unless the thermostat can be returned to the desired setting in the morning, automatically, or unless some member of the household regularly gets up several hours before others and can reset the thermostat several hours in advance of the arising of other members of the family.

The resetting of the thermostat can be provided by either of two means. The usual means until recently was the so-called clock thermostat, available at a cost up to about \$40 plus an installation charge of perhaps \$10. In some such devices there are two thermostats, one which is operative during the daytime hours and another one which goes into effect at night, when a switch operated by the clock transfers the control circuit from one thermostat to the other.

There are several devices sold today which perform the same function in a simpler way, permitting a more economical construction and eliminating the need for calling in an electrician or a heating plant man to do a special wiring job. One such device tested by CR is the *Temp-O-Matic*, which consists of two parts, a small electric heating unit, and a timer or clock that turns on or off the current through the heating element.

The principle is simple. The small electric heating element is hung just below the regular thermostat; a current of warm air rising from this

element surrounds the sensitive element of the regular thermostat. This heating element is connected by a piece of lamp cord to the timer control, which is plugged into a regular 110-volt supply circuit. On the timer control, there is a clock dial with a pointer which is set by a knob: a small lever at the rim of the knob is set at the time at which it is desired to reduce the temperature in the house at any time between 7 P.M. and 1 A.M. When the time comes at which the temperature is to be reduced, the control switch turns on the heating element, which raises the temperature of the air around the thermostat by about 10 degrees. (This temperature is determined by the distance below the thermostat at which the heating unit is set so that the user has some control over the depression of room temperature occurring during the night hours.) The effect is as though the thermostat setting had been lowered by hand by an approximate 10 degrees. At 5:30 in the morning, the heating element is switched off by the timer control, and very soon thereafter the thermostat will call for heat and will continue to do so until the room reaches a temperature corresponding to the normal daytime setting of the thermostat.

There is no provision for adjusting the time at which the unit operates in the morning other than by setting the clock fast or slow. For example, setting the clock one hour slow will bring the heat up at 6:30 instead of 5:30. If at any time the householder does not wish to reduce the heat during the night, he simply operates a small toggle switch located on the cover of the heating element; when this is in "off" position, no current passes through the heating element.

Two samples of this device tested by CR functioned satisfactorily. Current consumption was small, amounting to 3 watts for the clock and 5 watts for the clock and heater, equivalent to about 9 cents per month with electricity at 3½ cents per kilowatt-hour. The unit was well made and finished, but considered high priced. It is listed by Underwriters' Laboratories.

#### A. Recommended

Temp-O-Matic, Model TO-21-X (Temp-O-Matic Div. of the D-Frost-O-Matic Corp., 6 N. Michigan Ave., Chicago 2) \$19.95.

# Manufacturers Should Furnish Proof of Claims

Note in the article on crankcase oil additives THE following excerpt from the Editor's which appeared in the September 1951 Con-SUMERS' RESEARCH BULLETIN will be of interest to anyone inclined to raise a question about the truth of claims for the large number of products on which there is cause to suspect that the advertising overstates the merits of the item or is definitely misleading, deceptive, or fraudulent. The points here given will, of course, apply to many kinds of things - not just additives for automobile oil - but likewise many other momentarily popular lubricants for automobiles. and various electrical or mechanical devices for improving performance, preventing skids, etc. "Gadgets" for installation on television receivers to improve reception are in the same category, as are also extra-small fire extinguishers, cellarwaterproofing compounds, "water-conditioners," long-life electric light bulbs, and "100-percentefficient" electric heaters. Various cleaning, polishing, and other chemical products for use in the home should in general be subjected to the same sort of test of the truth and validity of advertising claims.

The best general rule is that when a product is offered to you with persuasive advertising which makes special claims for quality or unusual characteristics, or is sold by interesting and appealing 'demonstrations,' and the product is one where technical questions are obviously involved (as they would be with a specially high-priced motor oil, or a motor oil additive), it is wise for the consumer who does not have qualified sources of technical information at his disposal to take the position that he is not interested in a product unless and until the promoter's claims are supported by proof, in the form of detailed, signed reports of technical tests conducted by engineers, physicists, or chemists of skill and competence in the field of science or technology in question.

If a report is furnished for examination, be sure it proves the points claimed in the advertising; that it is based upon laboratory tests or analyses by qualified professional experts, not any sort of personal approval or testimonial; that it does not deal with irrelevant matters, or does not merely assert that the product lacks certain harmful properties.

It must be conceded that the layman — and indeed many professional experts — would not

be able to determine whether the information the manufacturer furnished as proof regarding absence of harmful substances was true and dependable or that all possible and relevant harmful properties had been tested for. It necessarily follows from this that for many persons, especially those who cannot afford to risk their money for a product that may not be good, the only sound solution is not to buy when the product's claims are not supported, or when the information furnished is not judged to be sound, relevant, and correct. It will very often happen that information of a sort will be furnished, but it will not go to the heart of the problem and establish the facts which are needed to support the advertising claims. It is fair to assume that if any one of the major advertising claims is not supported, trust should not be placed in the others, either.

It is necessary also to bear in mind that the loss the purchaser may incur by a mistaken choice may not be due solely to the outlay on the useless or misrepresented product. The product may cause harm to an appliance or to other equipment with which it is used, or present a fire or shock hazard. Great numbers of automobile radiators, for example, have been ruined by anti-freeze solutions of a wholly unsuitable type - which advertising or sales talks represented as being entirely safe and free from the danger of corroding the engine and its cooling system. Another example is that of devices for saving gas or other fuel in house heating or cooking, which may present a grave danger of asphyxiation or carbon monoxide poisoning.

To sum up, the consumer who cannot afford to waste his money should demand proof of all essential points before he buys - whenever there is any reason to doubt the claims, or whenever the item is of an unusual or unprecedented sort or the advertising or the salesman "promises a lot." If the proof is not forthcoming or if it is not satisfactory and thoroughly convincing, it will be the part of wisdom to keep your money. Do not accept anyone's mere verbal say-so that the product has been tested and came through with flying colors, or something of the sort. Only responsible, written or printed statements, showing the company's name and full address, and fully identifying the product, should merit your serious consideration.

#### Oil Filters

Oil filters are a frequent subject of inquiries to CR. This brief article tells the layman what he needs to know about the value and limitations of oil filters for automobiles.

MANUFACTURERS of oil filters for automobiles have produced reams of advertising copy in attempts to prove that their products are essential for the proper operation of an automobile. After reading such claims, the consumer may well wonder how his car has been able to give good performance, perhaps for many years, without an oil filter; yet, as everyone knows, millions of cars have operated and will continue to run well without an oil filter. It may be conceded that under certain rather unusual conditions and with frequent replacement of the filter element an oil filter may be of some value: but on the whole a filter does not appear to afford either a good or a sure solution to the problem of oil contaminated by dirt, dust, and

The purpose of an oil filter is primarily to remove from the oil such abrasive material - particles of dust and sand - as may enter through the air filter and the crankcase breather pipe; an oil filter may also separate out the metal particles that result from wear in the engine. Most filters, however, are installed with a bypass on the pressure side of the pump, and only 5 to 10 percent of the oil flow passes through the filter. The oil emerging from the filter is returned to the crankcase where it mixes with the unfiltered oil; thus abrasive material may pass through the bearing surfaces many times before it is removed by the filter. As the filter is used, its filtering efficiency drops off rapidly, and less and less of the abrasive material is removed until finally it becomes almost totally ineffective. Thus it is that under normal conditions an oil filter is rarely effective enough to warrant installation and upkeep cost, if the cartridge is not replaced as frequently as it should be to obtain a substantial filtering effect (and it usually is not replaced as often as it needs to be). Some cars are now using full-flow oil filters in which all

of the oil normally passes through the filter. While these are an improvement over the partial flow or by-pass type, the full-flow filters, too, are effective only if the filtering elements are changed much more frequently than the average driver is likely to care to change them. (In this type, a spring-loaded by-pass valve opens to permit the engine to be lubricated by unfiltered oil when the filter has become clogged.) Filters are now available which use a permanent porous bronze filter diaphragm. This arrangement eliminates the problem of cartridge replacement, but the clogged diaphragm must be cleaned at frequent intervals with gasoline. We are not able to say at this time how well the porousmetal filters will pass oil after they have been used for a long time and cleaned repeatedly.

The removal by oil filters of additives now present in the oils recommended for most new cars has been given considerable attention by the oil industry, the Bureau of Standards, and others, and the consensus of opinion appears to be that filters using a cellulose (paper) filtering medium have the least effect in removing detergent and other additives - which should, of course, remain in the oil. The concentration of detergent additive originally present in the oil is sufficient to allow for the loss that occurs with use of this type of filter. (Filters using clay, fuller's earth, or activated earth should not be used with additive oils, for they will almost completely remove the additives for which the consumer paid and which give the oil its "premium" values.)

It is significant to note (1) that one of the very highest priced American cars, and the one generally conceded to offer the most in prestige to its owners, the *Cadillac*, which one may presume will be fitted with all needed and useful accessories, as it is delivered to its purchasers, does not include an oil filter as standard equipment. (A partial flow type of filter is available as accessory equipment at an extra price if desired.) (2) The *Pontiac* Owner's Guide states "External type oil filters or cleaners are not necessary or desirable on Pontiac cars and no provision has been made for their installation."

#### Off the Editor's Chest

(Continued from page 2)

the quality is right and the cooking done to their specifications. Vegetables they can often take or leave alone. Perhaps they have acquired a deep suspicion of this factor in a well-balanced dietary because vegetables nowadays are so often undercooked and hard. One may like rare roast beef and steak, but bullet-like underdone peas or lima beans, and tough string beans are a gastronomical atrocity. Apparently the propaganda of earlier years to persuade housewives to avoid cooking vegetables to death has taken hold too firmly and cooks have, not unnaturally, gone far toward the other extreme, but the fact remains that too few restaurants, even those which otherwise serve a tasty meal, provide tender cooked vegetables. Peas that are hard as bullets are now commonly associated with those yearly banquets put on by service clubs and other organizations, and may be one reason why the term "banquet" is no longer the synonym it once was for a pleasurable feast of shellfish, fish, poultry, and roast or broiled meat.

Good coffee is enjoyed by men and women alike, but is surprisingly rare even in restaurants where everything else is first class. How to produce it, what vessel to use, how to select the blend, is a subject to which considerable space could be devoted. Most important to a good cup of coffee is that the beans be freshly roasted and freshly ground (not vacuum packed), the water properly boiling and preferably soft (not artificially softened). Tastes in blends will vary, and it is even considered desirable in some sections to add chicory for a slightly bitter flavor.

Ice cream is often of low quality is some restaurants which otherwise pride themselves on good-food. The ice cream will often be of a well-known, advertised brand — usually low in butterfat and high in sugar and "stabilizer" content. Even if it costs slightly more, a less well-known brand of the "French" or "Philadel-phia-type" ice cream of higher quality could probably be obtained if the management would just take the trouble to select and buy ice cream carefully.

Overuse of spices and of salt in cooking is objectionable to many discriminating eaters. In some parts of the country, restaurant cooks have so little faith in the quality of their soups, meats, and vegetables that they overseason them habitually. Chefs, too, come to assume that their taste in salt and spice, especially pepper, must necessarily please the customers. The wise restaurant man will insist on severe restraint in respect to all additions of salt and of pepper, curry, and other spices.

Another objectionable habit of restaurants is the serving of canned vegetables and fruits when the price charged for meals is ample to justify the use of fresh vegetables in season, or frozen ones in off-season periods. "Green peas," on a menu unfortunately does not mean what the unwary patron often thinks it means; they are green, but not fresh, as the adjective connotes.

In any establishment where the food is well prepared and the selection good, it is a pity to have the whole effect spoiled by an unamiable waiter or waitress. There is something chilling to the digestive juices when a girl snaps at the simple-hearted diner who wants to substitute another vegetable for potatoes or who is inordinately thirsty and expresses a wish to have his water glass replenished regularly. Back in the days of meat rationing when so many people ate out in order to obtain an adequate diet, it was a common joke that restaurant managers had to cater to their help, but customers they had in abundance. Times have changed and the waiter or waitress who makes the customer feel welcome and who is cordial in seeing that water glasses are kept filled and that when steak is ordered rare, it comes rare (or is cheerfully taken back to the kitchen if it turns out to be well done), will often be an important factor in bringing customers back again and again. There is something very satisfying in having an attentive waiter or waitress not only willing, but eager to see that one's wants are carefully attended to: in other words a waiter who earns his pay for service, and is not just present, off and on, at your meal.

In many sections of the country, it is a favorite week-end pastime to explore the eating facilities within driving range; and in the far west and southwest driving range may be 100 miles or more. Undoubtedly there are many points not covered by these random observations that are important factors in determining whether a restaurant or roadside eating place is popular or not. We always enjoy hearing about other people's likes and dislikes on the subject. Keep in mind that when an otherwise good restaurant has one or two features that are annoying, they should be brought to the attention of the man-

ager either in conversation or by letter. (A letter is better because it can be passed along to managers, head waiter, the chef, and others concerned.) Often simply mentioning the fault to the manager will result in the desired correction. Of course, if you don't expect to return, you may not wish to bother, but if you do kick you will often be performing a service to those who follow you, as well as to the restaurant itself

#### Cure for the Tobacco Habit?

THERE HAVE BEEN some inquiries about a product called *Bacco-Ban*, described as a "pleasantly palatable, oral preparation — an aid in overcoming the habitual craving for tobacco." The active ingredient of this product is lobeline sulfate. The distributors are Xenoteck, Inc., Van Nuys, Calif., and Stanan Products, Box 1306, Grand Central Station, New York 17.

Competent medical information indicates that lobeline sulfate does not have any significant pharmacological or therapeutic value, although it is admitted that some individuals who expect the medicine to be helpful might find a preparation containing lobeline sulfate an aid in discontinuing the smoking habit. Medical opinion is, further, that excessive smoking is a psychiatric problem and should be treated as such. It is doubted that the sale of products containing lobeline sulfate to the general public is justified, since few perhaps would be likely to receive benefit from their use, except through the effects of suggestion, just as people often feel better after taking a medicine from which favorable results have been promised or are expected.

According to the U.S. Dispensatory, the action of lobeline (dominant alkaloid of the plant lobelia) is in many ways similar to that of nicotine. In large doses lobeline is dangerous; produces rapid pulse and marked lowering of blood pressure and great general relaxation, falling temperature and final collapse. In the product as supplied to consumers, it is considered unlikely that the dosage is of sufficient magnitude to be significant from the standpoint of toxic effect. On the other hand, it is unlikely that it makes any significant contribution toward helping to cure the smoking habit. Lobeline sulfate has been employed in veterinary medicine, but in such uses its action is reported to be variable and uncertain or feeble and unreliable.

The only reference CR has found to lobeline sulfate in respect to the tobacco habit is a recommendation by J. L. Dorsey, 1936, and on this Sollmann's Manual of Pharmacology comments, referring to work of I. S. Wright and D. Littauer, 1937, that "The intense nausea would generally discourage smoking, but it often proceeds to gastric distress, and vomiting and circulatory disturbances, too drastic to render the treatment advisable."

The advertising of Bacco-Ban is open to the objection which applies to much patent medicine advertising. It talks about the terribly poisonous quality of nicotine of which "eight drops will kill a horse" and in general greatly exaggerates the dangers of smoking. One gets the impression that the person who smokes cigarettes is not far removed from the one who uses narcotics. While some of the information about the dangers and harm of smoking is valid, it would seem in order to point out at the same time the possible dangers in taking lobeline as a medicine, and what harm is done if that, too, is overconsumed. It seems at least possible that if lobeline sulfate were taken to an extent that would cure the tobacco habit, the cure might be as open to objection as the habit which was to be cured. For instance, a report on lobeline sulfate used as a tobacco habit treatment calls attention to the drastic gastro-intestinal symptoms which the lobeline sulfate treatment may produce, and points out that widespread use should not be encouraged until further studies have been completed. Such studies may have been carried out, but if so, the distributors of Bacco-Ban do not say so, and do not give the benefit of their findings to the readers of the advertising that we have seen. Some of the products in this field caution the user not to exceed eight doses of 1/64 grain of lobeline sulfate in 24 hours. The Bacco-Ban label, however, included no warning regarding danger of overuse.

# Ratings of Motion Pictures

THIS section aims to give critical consumer digest of opinion from a wide range of r	
tion picture reviews, including the motion p	
ture trade press, leading newspapers and ma	
zines — some 19 different periodicals in all. T	
motion picture ratings which follow thus do	
represent the judgment of a single person, l	

#### The sources of the reviews are:

Box Office, Cue, Daily News (N.Y.), The Exhibitor, Harrison's Reports, Joint Estimates of Current Motion Pictures, Motion Picture Herald, National Legion of Decency, Newsweek, New York Herald Tribunt, New York Times, New York World-Telegram & Sun, Purents' Magazine, Release of the 114. R. Preview Committee, Reviews and Ratings by the Protestant Motion Picture Council, Time, Times Herald (Washington, D.C.), Variety (weekly), Weekly Guide to Selected Motion Pictures (National Board of Review of Motion Pictures, Inc.).

The figures preceding the title of the picture indicate the number of critics who have been judged to rate the film A (recommended), B (intermediate), or C (not recommended) on its entertainment values.

Audience suitability is indicated by "A" for adults, "Y" for young people (14-18), and "C" for children, at the end of each line.

#### Descriptive abbreviations are as follows:

Descriptive abbreviation	nis
ade-adventure	
biog-biography	
<ul> <li>in color (Technicolor, Cinecolor,</li> </ul>	
Trucolor, Magnacolor, Vitacolor, etc.	.) 8
car-cartoon	
com-comedy	8
cri-crime and capture of criminals	. 8
doc-documentary	E)
dr-drama	7)
fan-fantasy	

adt—adventure biog—biography c—in color (Technicolor, Cinecolor, Trucolor, Magnacolor, Vitacolor, etc.) car—cartoon com—comedy ri—crime and capture of criminals doc—documentary	mel—melodrama mus—musical mys—mystery nor—dramatization of a novel rom—romance sci—science fiction soc—social-problem drama trav—travelogue
dr—drama fan—fantasy hist—founded on historical incident	war—dealing with the lives of people in wartime wes—western

A	В	C	
	-		
	8	2	Abbott and Costello Meet Captain Kiddmus-com-c AYC
	-	-	Above and Davand
5	8	- 4	Above and Beyond war-dr AY
-	4	11	Against All Flagsadv-c AY
-	4	3	All Ashore mus-com-c A
2	8	2	Amazing Mr. Fabre, The
			(French)biog AY
-	8	10	Androcles and the Lion
-	2	10	Angel Face
-	2	4	Angel Street (British)dr A
-	2	4	Angelo in the Crowd (Italian)soc-dr A
-	6	5	Anna (Italian)dr A
_	6	3	Apache War Smoke
1	5	9	April in Paris mus-com-c A
-	-	5	Army Bound mel AYC
-	10	6	Assignment — Paris cri-mel AY
-	-	10	Babes in Bagdadadv-c A
5	8	3	Bad and the Beautiful, Thedr A
_	3	2	Battle Circus war-mel A
-	4	5	Battle Zone
-	1	3	Battles of Chief Pontiac hist-mel AYC
3	9	-	Beauty and the Devildr A
-	8	7	Because of Youdr A
2	14	2	Because You're Minemus-dr-c AYC
-	-	4	Bela Lugosi Meets a Brooklyn
			Corillo ri com AVC

A	В	C	
-	3	7	Berliner, The fan A Big Jim McLain mel A
-	8	9	Big Jim McLain
-	4 8	11	Black Castle, The cri-mel A Blackbeard, the Pirate adv-c A
	7	2	Blazing Forest The mele AVI
_	1.3	3	Bloodhounds of Broadway . mus-com-c A
-	3	2	Blue Canadian Rockies spec-c AVC
-	9	1	Bonzo Goes to College
9	6	4	Brave Don't Cry, The (British)dr A
9	6	1	Barrier (British) de AV
	1	9	Barrier (British)
-	4	1	Cairo Road (British) mel A Captain Black Jack (British) mel A Captive Women sci A Castle in the Air (British) com AYC Cattle Town mus-wes AYC Cinerama doc-c AYC City Beneath the Sea mel-c A Cliff of Sin, The (Italian) dr A Clown. The dr A
-	1	8 7	Captain Black Jack (British)mel A
_	8	2	Castle in the Air (British) com AYC
	3	5	Cattle Town mus-wes AYC
6	5	-	Cinerama
_	5	2	City Beneath the Seamel-c A
1	2	3 8	Clown The (Italian)
5	12	2	Clown, The
_	5	_	Confidentially Connie
-	1	3	Count the House mal 4
-	13	4 2	Crimson Pirate, The adv-c AYC Cupboard Was Bare, The
			(French)
1	3	5	Curtain Up (British)
-	2	2	Dark Man, The (British) cri-mel AYC
-	6	2 2	Desperadoes' Outpostwes AYC
-	4	-	Desperate Search
2	11	5	Eight Iron Men war-dr A
1	10	5	Eight Iron Menwar-dr A Everything I Have is Yoursmus-com-c A
-	14	2	Face to Face
1	6	1	Fargo. wes AYC Father's Dilemma (Italian)
	2	3 2	Feudin Fools
	6	4	Flat Top war-mel-c AYC
Name of Street,	5	4	Flat Top. war-mel-c AYC Flowers of St. Francis (Italian) doc-dr AYC
4	7	1	Forbidden Games (French), war-dr A
1	9	8	Four Poster, The
	_	5	Gambler and the Lady
			(British) cri-mel A Girls in the Night cri-mel A Girls of Pleasure Island, The com-c AYC Gods of Bali doc AY Golden Hawk, The adv-c A Gunsmoke week-AYC
	3	5	Girls in the Night
	1	3	Gods of Bali doc AV
-	3	11	Golden Hawk, The adv-c A
-	5	2	Committee
5 1	9	4	Hangman's Knot
2	11	2	Helloate mel A
1	7	6	Hiawatha hist-dr-c AYC Hideout, The (British) cri-mel A
-	-	3	Hideout, The (British)cri-mel A
1	4	1	Hitch Hiker, The cri-mel A Hoaxters, The propaganda-doc AYC
1	5	4	Hold That Line
-	8	5	Horizons Westwes-c A
-	11	6	Hour of 13, The
-	4	12	Hurricane Smithadv-c A

					_		
A	В	C		A	В	C	
1	4	1	I Confessmys-mel A	-	6	2	Ride the Man Down
******	3	7	I Don't Care Girl, The mus-com-c A	-	6		Ring, Thesoc-dr AY
-	5	-	I Love Melvin mus-com-c AYC	4	10	2	Road to Balimus-com-c AYC
5	2	3	I'll Get You (British) mys-mel AY	1	2	3	Rogue's Marchdr AYC
3	11	1	Importance of Being Earnest, The	1	5	1	Rose Bowl Story, The dr-c AYC
	A	6	(British)	_	3	11	Ruby Gentrydr A
	4	11	Invasion, U.S.A	****	11	5	Savage, The mel-c A
2	9	2	Iron Mistress, Themel-c A It Grows on Trees	-	_	5	Savage Mutiny mel AYC
6	,	2	it Grows on Trees	-	7	2	Savage Triangle (French) dr A
-	1	2	Jack McCall, Desperadowes-c A	-	-	4	Scotland Yard Inspector
	9	4	Jazz Singer, The mus-biog-c AYC				(British)
	5	1	Jeopardy	1	4	-	Sea Around Us, The doc-c AYC
-	4	3	Julius Caesar	-	1	6	Secret People (British)cri-mel A
XX.	NAME.	3	Jungle Girl adv AYC	-	2	4	Seminole
				-	4	- 1	She's Back on Broadway. mus-com-c AY
-	8	6	Kansas City Confidential cri-mel A	-	4	1	Silver Whip, Thewes AYC
					5	3	Skipper Next to God (French) mel A
-	1	3	La Forza del Destino (Italian)mus-dr A	-	5	4	Sky Full of Moonwes-c A
-	6	2	Last of the Comanches wes-c AYC	3	11	4	Snows of Kilimanjaro, Thedr-c A
1		2	Lawless Breed, Thewes-c AYC	-	11	2	Something for the Birdscom A
E	7	4	Leonardo da Vincidoc-c AY	-	6	3	South Pacific Trail mus-wes AYC
-	4	3	Life Begins Tomorrow (French)dr A	2	10	4	Springfield Rifle war-mel-c AYC
-	-	3	Life of Donizetti, The	1	3	2	Star, The
1	13	3	(Italian)mus-biog A	5	12	î	Star of Texas
2	7	4	Little World of Don Camillo, The	3	5		Stars are Singing, The mus-com-c AYC
			(French)dr A	_	9	6	Steel Trap, The
	15	1	Lusty Men, The mel A	1	10	5	Stooge, The mus-com AYC
	8.67		busty men, the	_	8	6	Stop, You're Killing Me mus-com-c A
1	8	4	Magic Box, The (British) biog-c AY	_	7	_	Story of Mandy, The (British)dr A
*****	3	3	Magic Sword, The (Yugoslav) fan AYC	-	2	7	Strange Fascinationdr A
-	6	1	Magnetic Monster, The sci AYC	_	-	3	Streets of Sorrow (Italian)dr A
-	2	4	Man Behind the Gun,	_		5	Sword of Venusadv A
			The mus-mel-c AYC				
No.	4	3	Man with the Grey Glove, The	-	2	4	Tall Texan, Thewes A
			(Italian)mus-dr A	-	According	6	Tangier Incidentmys-mel AYC
-	- 1	3	Marika (Viennese) mus-com A	-	6	4	Target Hong Kong
*******	1	3	Maverick, The wes-c AYC	1	7	5	Taxicom AYC
****	10	2	Meet Me at the Fair mus-com-c AYC	2	14	2	Thief, The
minosi	6	10	Member of the Wedding, Thedr A	-	6	9	Thief of Venice, The (Italian)adv A
-	3	SCHOOL SECTION	Merry Wives of Windsor		1	4	Thirst of Men, The (French)dr A
4	15	2	(German) mus-dr A Million Dollar Mermaid biog-c AYC	200000	3	3	Three Dimensiondoc-c AYC
	6	10	Million Dollar Mermaid biog-c Arc	-	1	11	Thunder in the East
1	8	8	Mississippi Gambler, The mel-c A	5	4	5	Thunderbirdswar-dr AYC
	1	6	Monkey Business	3	2	5	Tonight We Singmus-biog-c AYC
_	3	8	Monsoon		6	4	Topaze (French)
-	1	3	Montana Incident	_	7	1	Toughest Man in Arizona wes-c A
5	6	2	Moulin Rougenov-c A	Nesero	5	î	Treasure of the Golden
-		6	Mr. Walkie-Talkie war-com AYC		2		Condoradv-c AYC
2	11	4	My Cousin Rachel	-	1	4	Triorama
1	7	1	My Pal Gus	-	1	5	Tromba, the Tiger Man
-	3	6	My Wife's Best Friend				(German)mel AYC
					7	3	Tropic Zonemel-c A
2	5	-	Naked Spur, The wes-c A	_	1	5	Tropical Heat Wave cri-com A
1	6	3	Never Wave at a WAC	1	9	5	Turning Point, The cri-mel A
-	10	3	Niagara mel-c A	3	7	2	Two Cents' Worth of Hope
Money.	1	12	Night without Sleepcri-dr A				(Italian)dr A
-	2	2	No Holds Barred	4	6	- 2	Under the Paris Sky (French)dr A
-	9	9	No Time for Flowers mys-mel A	1	6	3	
Name .	1	2	Of Love and Bandits (Italian)mel A	******	13	1	Under the Red Seadoc AYC
1	4	-	Off Limits	-	1	10	Voodoo Tiger adv-c A
-	7	1	Old Oklahoma Plains mus-wes AYC	-	3	2	Voyage to America (French)com A
-	10	7	Operation Secret				
-	7	8	Outpost in Malaya mel A	-	6	3	WAC from Walla Walla, The com AY
				******	7	3	Wagon Teamwes-c AY
-	6	2	Pathfinder, The now-c AYC	-	7	8	Way of a Gauchomel-c A
7	6	1	Peter Pan car-fan-c AYC	-	4	3	Wherever She Goes
-	2	3	Pimpernel Svensson (Swedish).com AYC		-	-	(Australian)mus-dr AYC
3	10	5	Plymouth Adventuredr-c AYC	_	8	5	White Line, The
1	8	6	Pony Soldierwar-mel-c AY		-		(Italian)propaganda-dr A
-	-	4	Port Sinister	0110	7	6	Willy and Joe Back at the
-	2	4	Prince of Pirates			2	Front
7 3 1 - 6 1	12	-	Prisoner of Zenda, The adv-c AY	_	5	3	Winning of the Westwes-c AYC
1	14	2	Promoter, The (British)	January .	4	5	Yankee Buccaneer adv-c AYC
_	7	4	Raiders, Thewes-c A	-	i	3	Young Chopin (Polish) mus-biog A
-	9	6	Redhead from Wyoming, The wes-c A	-	2	5	Young Wives' Tale (British)com A

#### The Consumers' Observation Post

(Continued from page 4)

FOOD POISONING has been on the increase in Great Britain, according to a summary reported last December in the Journal of the American Medical Association. In cases where the source of the infection could be fixed, it was associated with processed, made, and re-heated dishes such as meat pies, sausages, pressed beef, stews, and gravy. Failure to maintain adequate standards of kitchen hygiene, and faulty methods of preparing food for large numbers were held to be chiefly responsible. (It should be kept in mind also that the kind of refrigeration facilities that is taken for granted in most parts of the United States is not widely available in any country abroad.) The report also noted that the use of synthetic cream was associated with nearly every outbreak of paratyphoid fever in Great Britain since October 1940. This type of preparation is finding some acceptance in this country as a convenient way of providing a substitute for whipping cream.

HOW MUCH MONEY CONSUMERS WILL SPEND on various purchases continues to be a topic of anxious speculation in retail circles. During the coming year when the national economy will be affected by the fact that defense expenditures are expected to decline, the consumer's purchasing habits will be scrutinized with great interest by those with products to sell, and the hope is that consumer buying will be stepped up to cushion the drop as defense spending slackens. The head of a large retailing trade association points out, however, that the consumer isn't likely to part with his money unless the retailer shows him something that he doesn't know about that he will want or something that he would want if he knew more about it. If that is a plea for more informative advertising that deals with essentials, rather than superficialities, we heartly agree.

## Does advertising sleight-of-hand confuse you?



◆ Keener competition for the consumer's dollar in coming months will bring stepped-up advertising and more forceful sales tactics, according to the trade experts. If you and your friends are confused by conflicting and tricky claims for various products you contemplate buying, why not get acquainted with the value of Consumers' Research Bulletin which provides the basic facts needed to make an effective choice? Particularly on purchases involving large expenditures such as a television set, automatic washing machine, or a new car, CR's technical advice enables a prospective buyer to appraise the features offered by different brands and make a wise decision as to which will serve his needs efficiently and economically. By applying the methods of scientists and engineers to their buying, consumers can be as up-to-date in their purchasing habits as production specialists are in their fields. That's where Consumers' Research Bulletin comes in, presenting each month the results of CR's tests and expert examination of many of the things consumers need to buy.

The price of a subscription to Consumers' Research Bulletin is moderate. Just turn the page for rates and a handy order blank.

#### NEW OR NEWLY TESTED:

Synthetic detergents so popular for washing dishes and clothes, particularly in hard-water areas, are now making their appearance in bar form also. Synthetic toilet bars are of special interest to those who have an unpleasant allergic reaction to soap, who must wash with hard water, or who are forced to use sea water on occasion as in the Armed Services. There have as yet been no specifications developed for this type of product, such as the Federal Specifications for Milled Toilet Soap P-S-62la. Probably one of the most satisfactory methods of evaluation is the hand-washing test described by C. F. Jelinek, R. L. Mayhew, and J. A. Yeager of the Central Research Laboratory, General Aniline and Film Corp., in Soap and Sanitary Chemicals, August 1952. The ability of a given bar to lather is rated together with other characteristics such as "slip" during washing, and tendency to leave a sticky feeling on the hands; along with the physical form of the bar, whether it is soft, cracks on drying, or becomes unduly wet or sticky. Two bars currently available were examined on these points by CR.

Zest (The Procter & Gamble Co., Cincinnati) 4 oz., 15c. Lathered well in hard water; the lather held up well; it rinsed away leaving no sticky residue on the skin. It left no ring on the basin. The cake did not crack or split, was not soft or slippery when wet. It was found to be longer lasting than an ordinary cake of toilet soap by a user in a hard-water area. The perfume seemed to be unnecessarily strong.

Lowilla (Westwood Pharmaceuticals Div., Foster-Milburn Co., Buffalo 13) 4 oz., 69c. Did not lather so well as Zest and the lather broke down quickly. It left no sticky residue, no ring on the bowl, and had no detectable odor. The cake was quite hard and did not split or become soft when wet.

Both were considered to be worthy of a B-Intermediate rating at this stage of development. Lowilla, however, was much more expensive than Zest.

CR-4-53

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# Phonograph Records

#### BY WALTER F. GRUENINGER

Please Note: In the ratings AA indicates highly recommended; A, recommended; B, intermediate; C, not recommended. Although nearly all new releases of serious music are heard, space narrows comment, generally, to items which merit high ratings.

Bach: Clavierübung. Kirkpatrick (harpsichord) and Callaway (organ). 14 sides, Haydn Society HSL-A. \$41.65. Clavierübung was the title Bach gave to his four published collections of keyboard music. In this medium Bach never surpassed the works included — the "Goldberg Variations," the six "Partitas," "Italian Concerto," setting for organ of the "Greater and Lesser Catechism," etc. Kirkpatrick has never played better, to my knowledge, and he has 10 sides of the set. Some may regard him as pedantic, but better this way than sensational. Callaway handles a lesser task expertly. Excel-lent recording. Individual records are available.

Interpretation AA Fidelity of Recording AA

Chueca: Azucarillos y Aguardiente. Rosado, Encabo, Chueca: Asucarillos y Aguardiente. Rosado, Encado, Iriarte, Carchena, etc., under Argenta. Montilla FM LP 7. \$4.95 (447 W. 50 St., N.Y.C.). A 10-inch LP disk out of the "new catalogue of Spanish Zarzuelas (operettas) recorded in Spain." Off the beaten path, light music. Flavorsome, authentic, zestful performance. Excellent recording. Fidelity of Recording AA

Mahler: Symphony No. 5 and Symphony No. 10 — Adagio only. Orchestra of the Vienna State Opera under Scherchen. 4 sides, Westminster WAL 207. \$11.90. An accessible work that has its dull stretches but its exciting ones, too. Record collectors are fortunate in having this dramatic performance and wide-range recording as as the re-issue on Columbia (SL 171) by Bruno Walter and the Philharmonic plus, on side 4, eight songs of Mahler sung with comprehension by Desi Halban. West-minster's recording is brighter than Columbia's.

Interpretation AA Fidelity of Recording AA

Mozart: Symphonies 4, 10, 11, 14. Winterthur Symphony Orchestra under Ackermann. Concert Hall Society CHS 1166. \$5.95. Charming early works played with taste and very well recorded. Interpretation AA Fidelity of Recording AA

Mozart: Casals Festival at Perpignan. Vol. II. Perpignan Festival Orchestra and Soloists under Casals. 8 sides, Columbia SL 168. \$21.80. Beethoven: Festival. Vol. III. 8 sides, Columbia Set SL 169. \$21.80. The Mozart presents four piano concertos and one flute concerto. Best single disk, though the playing is first rate on all disks — Horszowski doing the Concerto No. 27. In many respects the Beethoven Vol. III is best of the "Festival" redespose with its formal statement of the stat val" releases, with its four trios, two variations for cello and piano, and the Sonata No. 2 for cello and piano. The playing may sound at first a little dry, pedantic, slow, like Bruno Walter's Beethoven. But it wears well. In no case in either volume is the recording suitable for hi-fi demonstration but the balance is good and overall it is acceptable.

Interpretation AA Fidelity of Recording A

Ponchielli: La Gioconda. Corridori, Cavallari, Corena, Pirazzini, Members of the La Scala Orchestra and Chorus under Parodi. 8 sides, Urania Set URLP 229. \$23.80. Blood and thunder plot and music to fit have kept Ponchielli Ponchie chielli's opera in the repertoire. The melodrama is ably conveyed in this recording. All of the principals are

skilled and the direction is vigorous. The fidelity is open to criticism in only two respects: the tendency to overblow the soloists, thus frequently subduing the orchestra and the chorus, and there is an occasional pitch wobble. Interpretation AA

Fidelity of Recording A

Verdi: Forza del Destino. Guerrini, Pirazzini, Campora, etc., with Professori D' Orchestra and Artisti del Coro of La Scala under Parodi. 6 sides, Urania URLP 226. \$18.50. Singing above average, with Campora as Carlo and Colzani as Alvaro standing out. Direction — first rate, pointing up the drama forcefully. Recording of voices, excellent; orchestra, with the exception of a thinly recorded top in the overture, entirely satisfactory, with Interpretation AA Fidelity of Recording A

Columbia's first six releases in its Modern American Music Series may be welcomed by the advance guard and by students, but more Americans will choose to buy recordings of Beethoven's Ninth Symphony of which an estimated 100,000 pressings were sold in the past six months. But if you'd like to explore Moore's Quintet for Clarinet and Strings, Piston's Sonatina for Violin and Harpsichord, Harrison's Suite for Cello and Harp, Dahl's Concertino a Tre, and the like, I doubt that you will find them better performed and recorded for years to expense to expense. performed and recorded for years to come.

The Treasury of Immortal Performances": Under this title RCA Victor has again issued a sheaf of LP's which they admit are not representative of their present technical quality, being re-recordings from 78's of earlier years. The performances of the following, however, are on a high level: Caruso in Faust, A Tribute to Lotte Lehmann, Pagliacci, A Masked Ball, Madama Butterfly, The Mikado, Critic's Choice. Particularly treasured by collectors of 78's and included in this release are Cosi Fan Tutte recorded at Glyndebourne under Busch and an abridged Recombagiler, with Lehmann, Schumann, Olivewska, and Rosenkavalier with Lehmann, Schumann, Olszweska, and

In this same class are Vol. 3 and 4 of Decca's "Schlusnus Sings" series — both offering highly recommended performances of lieder.

#### OTHER LP'S HIGHLY RECOMMENDED (for interpretation and for fidelity)

DECCA - Bach: Suites Nos. 4 and 5. Lillian Fuchs

(viola). DL 9660.

Dvorak: Serenade (Op. 44). London Baroque Ensemble under Haas. DL 7533.

Dobba. Cuenod.

POLYMUSIC — Mozart: Zaide. Dobbs, Cuenod, Demigny, with the Paris Philharmonic Orchestra under Leibowitz. 4 sides, PR 901/2.
RCA VICTOR — Early Italian Music. Stokowski and His Symphony Orchestra. LM 1721.
WESTMINSTER — Beethoven: Cello Sonalas Nos. 1 and 2 (Op. 102). Janigro (cello), Zecchi (piano). WL POLYMUSIC Mozart: Zaide. Dobbs, Cuenod,

Beethoven: Violin Sonatas Nos. 1 (Op. 12) and 10 (Op. 96). Fournier and Doyen. WL 5176, Mozart: Concert Arias for Soprano. Magda Laszlo. WL 5179.